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05 Aug 05

MARINE CORPS ORDER P3500.37A

From: Commandant of the Marine Corps  
To: Distribution List

Subj: AVIATION TRAINING AND READINESS (T&R) MANUAL, TACTICAL AIR CONTROL  
PARTY (SHORT TITLE: T&R MANUAL, TACP)

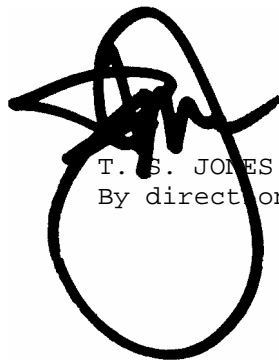
Ref: (a) MCO P3500.14H

Encl: (1) LOCATOR SHEET

1. Purpose. To publish policies, procedures and standards regarding the training of TACP personnel per reference (a).
2. Cancellation. MCO P3500.37
3. Background. ALMAR 028/03 is a policy memorandum directing that selected ground combat arms officers and enlisted Marines, who have successfully completed requisite training programs, be designated as Joint Terminal Attack Controllers. Therefore, this revision addresses the TACP T&R Program, Forward Air Controller (FAC) training, and Joint Tactical Air Controller (JTAC) training. This Order prescribes a unique template to provide commanding officers with standardized programs of instruction. As such, this Order deviates from the five paragraph order format directed by MCO 5215.1H.
4. Recommendations. Recommended changes to this order are invited, and will be submitted via the syllabus sponsor and the appropriate chain of command to: Commanding General, Training and Education Command (C 4610), Marine Corps Combat Development Command, 3300 Russell Road, Quantico, VA 22134-5001.
5. Reserve Applicability. This Manual is applicable to the Marine Corps Total Force.
6. Certification. Reviewed and approved this date.

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Location: \_\_\_\_\_  
(Indicate location(s) of copy(ies) of this Manual.)

T&R MANUAL, TAPC

RECORD OF CHANGES

Log completed change action as indicated.

Change Number	Date of Change	Date Entered	Signature of Person Incorporated Change

# T&R MANUAL, TACP

## CONTENTS

### CHAPTER

- 1 TACTICAL AIR CONTROL PARTY (TACP) T&R PROGRAM
- 2 USMC FAC (MOS 7502) TRAINING
- 3 USMC JTAC (MOS 9986) TRAINING

### APPENDIX

- A TRAINING PROGRAM STRUCTURE
- B T&R CHANGES
- C INDIVIDUAL PERFORMANCE RECORDS (IPR)
- D ACRONYMS/DEFINITIONS
- E TACP MISSION ESSENTIAL TASK LIST (METL)



T&R MANUAL, TACP

CHAPTER 1

TACP TRAINING AND READINESS (T&R) PROGRAM

	<u>PARAGRAPH</u>	<u>PAGE</u>
TACP T&R PROGRAM.....	100	1-3
DEFINITIONS.....	101	1-5
TRAINING POLICY.....	102	1-7
TRAINING PROGRAM STRUCTURE.....	103	1-8
SYLLABUS TRAINING.....	104	1-9
INDIVIDUAL TRAINING MANAGEMENT.....	105	1-10

FIGURES

1-1	TACP T&R PROGRESSION.....	1-4
1-2	JTAC TRAINING PROGRESSION.....	1-4



CHAPTER 1

TACP T&R PROGRAM

100. TACP T&R PROGRAM

1. The TACP T&R program develops unit warfighting capabilities by providing commanders with standardized programs of instruction for training Marine Joint Terminal Attack Controller (JTAC) and Marine Forward Air Controller (FAC)/Air Officer (AO) personnel through community T&R syllabi. These syllabi are based on specific performance standards designed to ensure individuals maintain MOS proficiency. Strict adherence to this program will ensure standardization throughout the operational forces and lead toward mission success.
2. This program utilizes a phased training approach to instruct Marine JTACs and FACs/AOs in the different Mission Tasks required for their specialty. These phases begin with general familiarization followed by required core training. Advanced and instructor/evaluator training rounds out phases in TACP programs of instruction.
3. TACP Mission. The mission of the TACP is to support the MAGTF commander by advising ground commanders on matters pertaining to aviation integration; directing and controlling Close Air Support (CAS) missions; providing combined fire integration; and providing terminal guidance operations. These operations will be conducted day or night under all weather conditions.
4. TACP Training Progression. TACP training progression is depicted in figures 1-1 and 1-2.
5. Changes to the Manual. Units may propose changes to this Manual per Appendix B.
6. Deviations From T&R Manual Policy. CG TECOM is the approval authority for deviations from T&R policy delineated in this Manual. Requests for T&R manual policy deviation shall be requested via message traffic to CG TECOM ATB via the respective MEF and info the syllabus sponsor. During contingency/combat operations, MAGTF commanders may deviate from the T&R training policies delineated in this Manual at their discretion.



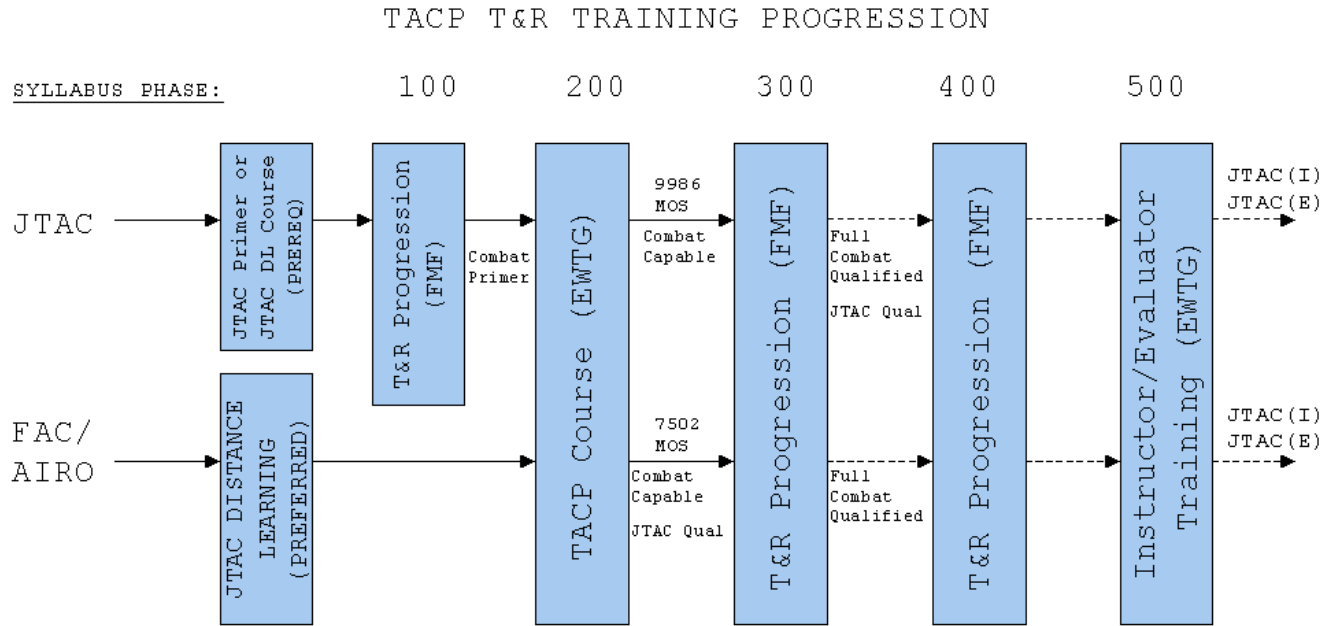


Figure 1-1.--TACP T&R Progression

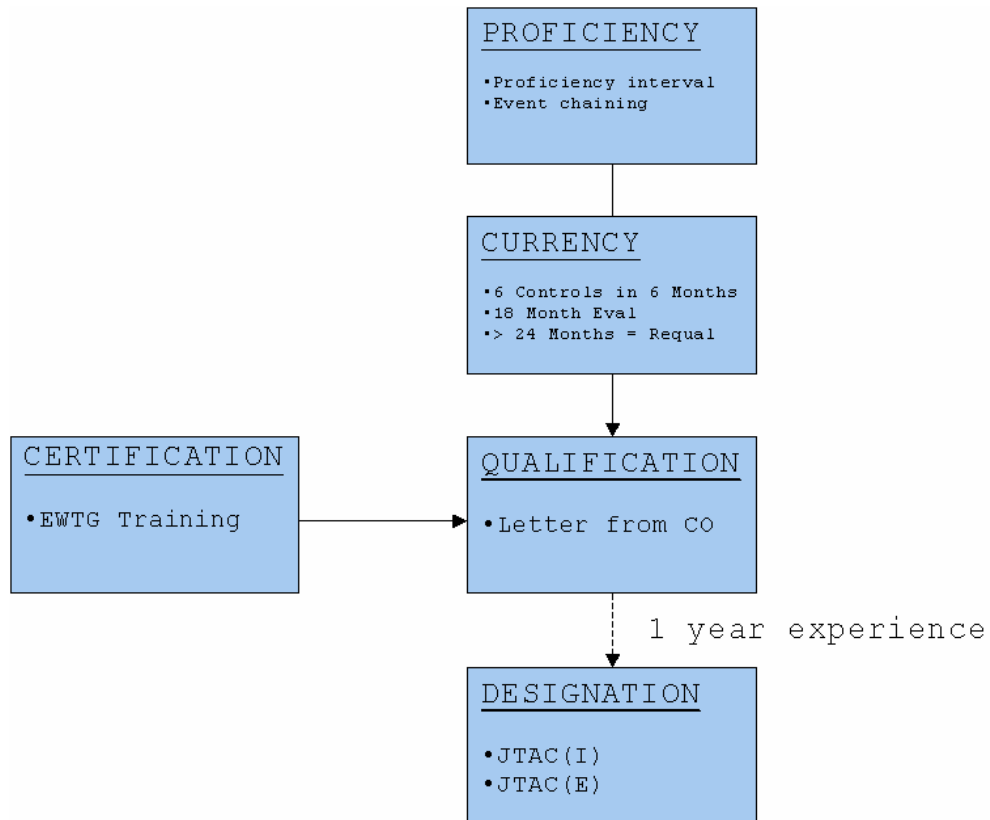


Figure 1-2.--JTAC Training Progression.

## 101. DEFINITIONS

### 1. USMC TACP Military Occupational Specialties (MOS)

a. Forward Air Controller (FAC)/Air Officer (AO) 7502. An aviator, qualified as a JTAC, who directs and controls Close Air Support (CAS) missions and advises commanders of ground units on matters pertaining to air support. A FAC/AO performs air/ground liaison, Terminal Attack Control (TAC) (as a JTAC), and Terminal Guidance Operations (TGO) duties.

b. Marine Joint Terminal Attack Controller (JTAC) 9986. A ground combat arms officer or staff NCO who, from a forward position, directs the action of combat aircraft engaged in CAS and terminal guidance operations. A qualified JTAC will be recognized across the DoD as capable and authorized to conduct TAC.

(1) A JTAC performs TAC and TGO duties.

(2) A JTAC does not perform all the liaison/assault support functions of a FAC/AO.

c. Air Officer (AO). FACs and AOs are designated with a single MOS, 7502. An AO primarily performs air/ground liaison duties; an AO may perform TAC (as a JTAC), and TGO duties.

### 2. Training Management

a. Proficiency. Proficiency is a measure of achievement of a T&R event skill. Proficiency intervals establish the maximum time between demonstrations of those particular skills for the average individual.

b. Currency. Currency is a control measure used to determine qualification status. Currency is determined in terms of minimum training requirements that must be successfully completed within a defined time interval. An individual who successfully completes stated training requirements within the defined time interval is considered "current."

c. Certification. The evaluation process applied to an individual during a syllabus event(s) by a designated instructor or other authorized personnel for the purpose of ascertaining proficiency as a prerequisite to a qualification or designation. Individuals who satisfactorily complete the appropriate service academic and practical training requirements of a core training curriculum and complete a comprehensive evaluation may be granted a certification.

d. Qualification. A status assigned to personnel based on certification and currency requirements. Upon successful completion of qualification criteria, commanding officers are authorized to issue an appropriate qualification letter. Personnel failing to comply with currency requirements shall lose the respective qualification.

e. JTAC Qualification. A service member who meets Joint certification and currency requirements for a JTAC delineated in this Manual and the Joint Close Air Support Action Plan Memorandum of Agreement (JCAS AP MOA) [Joint Terminal Attack Controller (Ground)] 2004-01.

(1) A 7502 FAC/AO may be issued a JTAC qualification letter upon 7502 MOS designation and JTAC certification at Expeditionary Warfare Training Group (EWTG).

(2) A 9986 MOS JTAC may be issued a JTAC qualification letter upon 9986 MOS designation (EWTG certification/TACP completion), and successful completion of the 9986 MOS JTAC Full Combat Qualified phase.

f. Designation. A status assigned to an individual based on leadership ability. A designation is a command specific, one-time occurrence and remains in effect until removed for cause or transfer from the unit. Unit commanding officers nominate individuals to receive designations.

(1) JTAC Instructor [JTAC(I)]. A qualified JTAC who is designated as an EWTG TACP course instructor. A JTAC(I) is authorized to instruct JTAC trainees.

(2) JTAC Evaluator. A qualified JTAC certified by an EWTG JTAC(I). A JTAC Evaluator is authorized to evaluate qualified JTAC personnel undergoing the required 18-month evaluation.

g. Prerequisite. A stated requirement that must be successfully completed prior to commencing training. T&R event prerequisites shall not be omitted or skipped.

h. Trainee. An individual undergoing required formal school training to obtain a TACP MOS. Trainees are enrolled in a formal EWTG course.

### 3. General

a. Close Air Support (CAS). Air action by fixed and rotary wing aircraft against hostile targets that are in close proximity to friendly forces that require detailed integration of each air mission with the fire and movement of those forces. (JP 3-09.3)

b. Terminal Guidance Operations (TGO). TGO is different from TAC. TGO are actions that provide terminal guidance to weapons or aircraft to facilitate target engagement. TGO are many times conducted by Special Operations Forces (SOF) and make joint air attacks and SOF ground operations complementary. Enemy targets, such as mobile high-payoff targets that are difficult to locate from the air, are often more visible to ground SOF. Small ground SOF elements can sometimes search for, identify, and precisely report the location of these targets and with systems like Global Positioning System (GPS), laser designators, etc. or combinations of the above may provide target locations. Ground SOF may also be able to provide precise Bomb Damage Assessment (BDA) of attacks on targets that may otherwise be obscured or hidden. TGO do not include authority to clear aircraft to release ordnance and should not be confused with TAC. (JP 3-09.3)

c. Control. A control consists of at least 1 aircraft attacking a surface target. The control begins with a CAS briefing (the 9-line is the JP 3-09.3 standard) from a JTAC and ends with either an actual/simulated weapons release or an abort on a final attack run. No more than 2 controls can be counted per CAS briefing per target.

#### d. Terminal Control

(1) The authority to direct aircraft to maneuver into a position to deliver ordnance, passengers, or cargo to a specific location or target. Terminal control is a type of air control.

(2) Any electronic, mechanical, or visual control given to aircraft to facilitate target acquisition and resolution. See also Terminal Guidance. (JP 3-09.3)

e. Terminal Attack Control (TAC). The authority to control the maneuver of and grant weapon release clearance to attacking aircraft. (JP 3-09.3)

f. Terminal Guidance

(1) The guidance applied to a guided missile between midcourse guidance and arrival in the vicinity of the target.

(2) Electronic, mechanical, visual or other assistance given to a pilot to facilitate arrival at, operation within or over, landing upon, or departure from an air landing or airdrop facility.

(3) Any electronic, mechanical, voice, or visual communication that provides approaching aircraft or weapons additional information regarding a specific location or target. Terminal guidance is not a type of air control. Those personnel providing terminal guidance do not have weapons release authority, or authority to direct the maneuver of aircraft. See also terminal control. (JP 3-09.3)

g. Simulated CAS (SIMCAS). Terminal control with no intent to release ordnance.

102. TRAINING POLICY

1. CAS Training

a. A qualified JTAC (certified and current 7502 FAC/AO or Full Combat Qualified 9986 JTAC) is required to supervise the conduct of CAS during all USMC peacetime training evolutions.

b. A JTAC(I) shall supervise JTAC Trainees. A JTAC trainee is an individual who is enrolled in the EWTG TACP course.

c. A JTAC shall supervise individuals performing CAS familiarization training (100-level T&R events).

d. When supervising unqualified individuals, the supervising JTAC/JTAC(I) shall be physically co-located with the unqualified individual, and in a position to observe and assume control of the training operation. The supervising JTAC/JTAC(I) shall possess appropriate communication equipment required to immediately "ABORT" the control and be in a position to "CHECK FIRE" supporting arms.

e. JTAC Training Requirements. This Manual meets or exceeds all JCAS AP MOA 2004-01 certification, qualification, re-qualification, and currency requirements.

(1) USMC JTAC Certification Process. Prior to commencing JTAC training, a JTAC trainee requires a minimum of 1 year in a position with operational or mission ready combined fires exposure, or be an aircrew with at least 2 years of operational flying experience. Individuals shall receive authorized training at organizations with accredited courses. To be certified as a JTAC, the individual must conduct a minimum of 12 fixed wing Type I or Type II controls\*. Four of these controls must expend live or training ordnance. One of the 12 controls must be

conducted at night. Individuals receiving the 7502 or 9986 MOSs shall be certified by EWTG.

\* If an aviator is being trained as a JTAC, a minimum of 8 of the 12 Type I or Type II controls must be fixed wing.

(2) USMC JTAC Qualification Process. Once certified, a 7502 or 9986 shall receive the JTAC Qualification per standards delineated in respective MOS T&R chapters. A JTAC will retain his qualification provided currency is maintained and recurring evaluation requirements are accomplished.

(a) JTAC currency requirements are 6 Type I or Type II controls within the previous 6-month period. A minimum of 4 of the 6 required controls must be fixed wing. A minimum of 1 control every 6 months shall include ordnance and 1 control shall be a night control. If a JTAC does not accomplish 6 controls in a six-month period he shall lose the JTAC qualification. For designated 7502s, controls conducted as a FAC(A) satisfy JTAC currency requirements.

(b) At a minimum, JTAC qualified individuals shall be evaluated every 18 months by a designated JTAC Evaluator.

(3) JTAC Re-qualification Process. JTACs who fail to comply with currency or evaluation requirements lose their qualification.

(a) To regain qualification, a JTAC must complete, at a minimum, the number and category (e.g. appropriate night, fixed wing, ordnance, etc.) of controls the individual failed to accomplish in the previous 6 months under supervision of a qualified JTAC. A JTAC who is unqualified for 24 consecutive months must regain qualification by completing the EWTG TACP course. Upon successful completion of the EWTG TACP course, the individual shall be re-qualified as a JTAC.

(b) Evaluation. To regain qualification, the JTAC shall be evaluated by a qualified JTAC designated by the unit commander.

(4) JTAC Instructor Requirements. JTAC instructors must be assigned to EWTG and shall follow the JTAC(I) POI. Upon successful completion of the JTAC(I) POI, commanding officers are authorized to issue a JTAC(I) designation letter.

f. When a JTAC is operating in a supervisory role, both the unqualified individual and the supervising JTAC may log the same control.

2. Grandfather Clause. "Grandfathering" of TACP MOSs, T&R qualifications and designations - see CMC WASHINGTON DC 051758Z FEB 05 msg; CMC POLICY FOR JOINT TERMINAL ATTACK CONTROLLER (JTAC) PROGRAM/IMPLEMENTATION.

3. Formal School Training Priority. The priority for enrollment in formal school TACP training is as follows: (1) 7502 FAC/AO; (2) 9986 JTAC; (3) Other MOSs.

4. Authority and responsibility for training policy resides with CMC, CG MCCDC and force commanders. Training policy is applicable during peacetime training evolutions and is not intended to restrict contingency/combat operations.

103. TRAINING PROGRAM STRUCTURE. TACP T&R POIs are designed to build and maintain individual proficiency in MOS skills. T&R programs utilize a tiered progression of increasingly challenging training events.

1. TACP T&R syllabi shall be structured per Appendix A of this Manual and contain 5 general tiers (or phases) of training.
2. Personnel shall be assigned and train to the appropriate T&R Program POI delineated in this Manual.

#### 104. SYLLABUS TRAINING

1. Commanders shall conduct operational training per the syllabi in individual T&R Manuals. Commanders shall implement training plans to qualify personnel for their assigned duties.
2. Newly assigned Basic and Refresher personnel shall follow the POI as prescribed. Individuals should be scheduled to complete T&R events in sequential order to the greatest extent possible.
3. T&R Syllabus Evaluation. Establishment of standardized evaluation procedures provides commanders with an effective management tool for monitoring the progress of their personnel.

a. Syllabus sponsors shall develop common T&R syllabus event evaluation forms for documenting performance. T&R syllabus evaluation forms shall be placed in T&R manuals or maintained by the syllabus sponsor. If the syllabus sponsor maintains evaluation forms, the syllabus sponsor shall ensure electronic copies are made available to fleet units.

b. Evaluators shall use common evaluation forms to document individual performance for all initial events in the 100-500 phases. An E-coded event is required to be documented again via training forms each time that event is completed.

c. Evaluation forms shall be kept in Individual Performance Records (IPR) per Appendix C.

d. Qualification Evaluation. A designated JTAC Evaluator shall supervise the unit evaluation program. JTAC qualified individuals shall be evaluated every 18 months for training standardization by a JTAC Evaluator.

4. Syllabus Training Exceptions. Waiver or deferral of T&R events shall be avoided to the greatest extent possible. Joint training certification, qualification, re-qualification, and currency requirements shall not be deferred nor waived. Waiving or deferring syllabus events shall only be authorized by unit commanding officers when, in his judgment, a training exception is warranted. Waived and deferred events shall be annotated in IPRs.

a. Waived Events. Events may only be waived for experienced individuals in the Refresher POI; events shall not be waived for individuals in the Basic POI. Individuals are not required to complete waived events during the event's proficiency interval. Event proficiency status shall be updated for waived events per procedures delineated in paragraph 105.2.

b. Deferred Events. Commanding officers may defer events when a lack of logistic support or training assets does not allow event completion in a timely manner. Deferred events are temporary training exceptions, and deferred events shall be completed when logistic support or training assets become available. Event proficiency status shall not be updated for deferred events. The Training

Officer shall annotate deferred events in IPRs until the event is successfully completed.

#### 5. Refresher Training

a. Refresher POIs are prescribed for personnel returning to an operating force billet who have been previously assigned as a 7502 or 9986 in an operational unit. Refresher POIs shall be developed by community SMEs and delineated in individual T&R MOS chapters. Refresher POIs may contain fewer events than basic POIs and are designed to account for previous experience. Individuals undergoing Refresher POIs are also required to complete Basic POI syllabus events that the individual has never previously completed.

b. The EWTG TACP course is prescribed for previously qualified JTACs returning to an operating force billet, who have previously been assigned to the Basic POI of that MOS but have not performed MOS duties within 24 months. EWTG shall evaluate the previous experience and capabilities of each JTAC and tailor academic, practical application, simulator, and T&R Refresher event training as applicable. At a minimum, JTAC Refresher training shall include 200-level R-coded T&R events. Upon completion of EWTG Refresher training, the individual shall be JTAC qualified and should continue 300-400 T&R training conducted at the operational unit.

### 105. INDIVIDUAL TRAINING MANAGEMENT

#### 1. Individual Training Philosophy

a. Individual training and the mastery of individual Full Combat Qualification skills (300-level events) serve as the building blocks for unit combat readiness. Individual training requirements shall be clearly defined and structured (event goals, requirements, performance standards, etc.) per appendix A of this Manual.

b. Training officers shall provide personnel with an estimated schedule of upcoming training events to the maximum extent possible. Effective training management allows unit personnel enough lead-time to adequately plan for all upcoming evolutions.

2. Individual Proficiency. The individual proficiency process provides a tool for Training Officers to implement unit Operational Risk and Training Management procedures.

a. Proficiency dates for each T&R code shall be maintained for each individual. The proficiency date for an event is the most recent date that event was last completed or updated. A proficient status is valid from the proficiency date through the proficiency interval. Event proficiency status is either "Proficient," "Delinquent," or "Incomplete." Since proficiency status may change from day to day, measurement of proficiency status must be accomplished for a specific date, or "reference date." An Incomplete status indicates an event that has never been successfully completed (no proficiency date). A Proficient status indicates that the number of days between the proficiency date and the reference date (usually "today") must be equal to or less than the proficiency interval. A Delinquent status indicates that the number of days between the proficiency date and the reference date (usually "today") exceeds the proficiency interval. Note: when scheduling, the reference date used to produce proficiency status should be the date of the schedule, usually "tomorrow" or "Monday."

3. Event Proficiency Updating. Event proficiency dates shall be updated when an event is (1) Successfully completed, (2) Updated via chaining, or (3) Updated via Refresher POI updating.

a. Chaining. When a T&R event is logged, the proficiency dates of other T&R events (usually lower in number) may be updated. A T&R code that is logged is known as the chaining code, and the updated codes are chained codes. Chained codes are not always updated when a chaining code is logged. Specific rules may determine when codes are updated via conditional chaining.

b. Basic POI Chaining. The chaining matrix from the T&R determines which events may be updated. Delinquent or proficient are chain-updated. Incomplete events shall not be updated.

c. Refresher POI Updating. Event updating occurs by T&R phase. When all refresher events in a phase are successfully completed, all remaining events in that phase that are proficient or delinquent are updated. Incomplete events are not updated and must be completed in addition to refresher events.

#### 4. Qualification and Designation Management

a. Copies of designation and qualification letters signed by the unit commanding officer shall be included in IPRs per Appendix C.

b. JTAC Qualification Status Tracking. MEF/Division AOs shall maintain a JTAC qualification status record/log of all 7502/9986 MOS individuals in their respective MEF/Division per Appendix C. MEF/Division AOs shall coordinate with EWTG to ensure an adequate number of JTAC Evaluators are available in OPFOR units.

#### 5. Individual Performance Records (IPR)

a. All training shall be documented and maintained in IPRs per Appendix C. IPRs shall be maintained at the respective unit level operations department. The unit level operations department is responsible for proper training and ensuring that individuals maintain required qualification obligations.

b. JTAC currency shall be maintained in IPRs per Appendix C.





## CHAPTER 2

## FORWARD AIR CONTROLLER (FAC)/AIR OFFICER (AO) 7502

	<u>PARAGRAPH</u>	<u>PAGE</u>
MISSION.....	200	2-3
7502 PREREQUISITES.....	201	2-3
7502 MISSION ESSENTIAL TASK LIST (METL).....	202	2-3
PROGRAMS OF INSTRUCTION.....	203	2-3
ACADEMIC TRAINING.....	204	2-3
COURSES OF INSTRUCTION.....	205	2-3
TRAINING REFERENCES.....	206	2-4
EVENT TRAINING SUMMARY.....	207	2-4
EVENT PERFORMANCE REQUIREMENTS.....	208	2-6
COMBAT CAPABLE PHASE.....	208.1	2-8
FULL COMBAT QUALIFIED PHASE.....	208.2	2-11
ADVANCED TRAINING PHASE.....	208.3	2-13
INSTRUCTOR QUALIFICATION PHASE.....	208.4	2-16

## FIGURES

2-1	7502 T&R MATRIX.....	2-18
2-2	7502 EVENT UPDATE CHAINING.....	2-19
2-3	7502 SYLLABUS EVENT CONVERSION MATRIX.....	2-20



## CHAPTER 2

## FORWARD AIR CONTROLLER (FAC)/AIR OFFICER (AO) 7502

200. MISSION

1. Introduction. The TACP Officer course is designed to provide trained Forward Air Controllers (FACs) and Air Officers (AOs) for the Total Force. All personnel who successfully attain the 7502 MOS shall also receive the qualification of JTAC.

a. A FAC/AO is an officer (aviator/pilot) member of the TACP who, from a forward ground or airborne position, controls aircraft in close air support of ground troops. FAC/AOs direct and control CAS missions and advise commanders of ground units on matters pertaining to air support.

b. A qualified and current FAC/AO will be recognized across DoD as capable and authorized to conduct TAC and TGO.

201. 7502 PREREQUISITES. Personnel assignments as a 7502 shall be made per MCO 1301.25 and MCO P1200.7.

202. 7502 MISSION ESSENTIAL TASK LIST (METL). FACs/AOs are required to perform all TACP tasks listed in Appendix E.

203. PROGRAMS OF INSTRUCTION1. POI for Basic 7502

<u>WEEKS</u>	<u>COURSE/PHASE</u>	<u>ACTIVITY</u>
1-3	TACP Course/Combat Capable Phase	EWTG
4-10	Full Combat Qualification Phase	OPFOR
11-26	Advanced Training Phase	OPFOR

2. POI for Refresher 7502

<u>WEEKS</u>	<u>COURSE/PHASE</u>	<u>ACTIVITY</u>
1-3	TACP Course	EWTG

3. POI for JTAC(I)

<u>WEEKS</u>	<u>COURSE/PHASE</u>	<u>ACTIVITY</u>
1-3	JTAC(I) Course	EWTG

204. ACADEMIC TRAINING. 7502 academic requirements consist of the EWTG read-ahead package, and the TACP course.

205. COURSES OF INSTRUCTION

<u>COURSE</u>	<u>ACTIVITY</u>
Tactical Air Control Party Course (TACP)	EWTG
Fire Support Coordination Course (FSCC)	EWTG (Optional)
JTAC(I) Course	EWTG

206. TRAINING REFERENCES. The following source documents should be reviewed prior to applicable field events:

Doctrine for Joint Fire Support (Joint Pub 3-09)  
 Joint Tactics, Techniques and Procedures for Close Air Support (Joint Pub 3-09.3)  
 Joint Suppression of Enemy Air Defense (J-SEAD), Multi-Service Tactics, Techniques and Procedures, Air Land Sea Application Center (ALSA)  
 Supporting Arms Observer, Spotter, and Controller (MCWP 3-16.6)  
 Military Operations on Urban Terrain (MCWP 3-35.3)  
 Close Air Support (MCWP 3-16)  
 Patient Movement (MCWP 4-11.2)  
 Assault Support (MCWP 3-24)  
 Tactical Fundamentals of Helicopterborne Operations (MCWP 3-11.4)  
 MAGTF Aviation Planning (MCWP 5-11.1)  
 Multi-Service Helicopter Sling Load: Basic Operations Volume I (MCRP 4-11.3E)  
 Aviation Planning Documents (MCRP 5-11.1A)  
 MAWTS-1 Academic Support Package  
 MAWTS-1 FAC(A) Handbook, Planning and Mission Execution  
 MAWTS-1 NVD Manual  
 MAWTS-1 MOUT Manual  
 USMC Rotary wing TACSOP

## 207. EVENT TRAINING SUMMARY

### 1. BASIC 7502 POI SUMMARY

#### Combat Primer Phase Training

N/A

#### Combat Capable Phase Training

	<u>EVENTS</u>	<u>HOURS</u>
Academic Lectures	34	48.0
Practical Application	4	16.0
Simulator Training	6	16.0
Artillery/Mortar "Call for Fire"	2	1.0
FW CAS, Permissive Environment	1	0.5
FW CAS, Restrictive Environment	1	0.5
RW CAS	1	0.5
CAS w/Continuous SEAD	1	0.5
CAS w/Int or Non-standard SEAD	1	0.5
CAS w/NVD and/or IR/Laser mark	2	1.0
Totals	53	84.5

#### Full Combat Qualified Phase Training

	<u>EVENTS</u>	<u>HOURS</u>
PGM CAS	1	0.5
Simulated CASEVAC	1	2.0
Day Troop Lift	1	2.0
Night Troop Lift	1	2.0
FAC(A) Integration	1	0.5
Totals	5	7.0

Advanced Phase Training

	<u>EVENTS</u>	<u>HOURS</u>
Combined Attacks w/Multi Sections	1	0.5
Allied CAS Procedures	1	0.5
Day Urban CAS	1	0.5
Night Urban CAS	1	0.5
CAS w/AC-130	<u>1</u>	<u>0.5</u>
Totals	5	2.5

	<u>EVENTS</u>	<u>HOURS</u>
Basic syllabus totals:	63	94.0

2. REFRESHER 7502 POI SUMMARYCombat Primer Phase Training

N/A

Combat Capable Phase Training

	<u>EVENTS</u>	<u>HOURS</u>
Academic Lectures	34	48.0
Practical Application	4	16.0
Simulator Training	6	16.0
FW CAS, Permissive Environment	1	0.5
RW CAS	1	0.5
CAS w/Continuous SEAD	1	0.5
CAS w/Int or Non-standard SEAD	1	0.5
CAS w/NVD and/or IR/Laser mark	<u>2</u>	<u>1.0</u>
Totals	50	83.0

	<u>EVENTS</u>	<u>HOURS</u>
Refresher syllabus totals:	50	83.0

3. JTAC INSTRUCTOR POI SUMMARYInstructor Phase Training

	<u>EVENTS</u>	<u>HOURS</u>
Academic Lectures	34	48.0
Practical Application	4	16.0
<u>Simulator Training</u>	<u>6</u>	<u>16.0</u>
Totals	44	80.0

	<u>EVENTS</u>	<u>HOURS</u>
Instructor syllabus totals:	44	80.0

208. EVENT PERFORMANCE REQUIREMENTS1. General

a. Documentation. 7502 T&R requirements shall be documented on common JTAC Training Forms, which shall be filed in individual IPRs. IPRs shall be maintained at the respective unit level operations department. The unit level operations department shall ensure that 7502s maintain required JTAC currency obligations. The operations department shall track and document semi-annual and annual currency requirements to include periodic/stage evaluations.

b. The Full Combat Qualified FAC will be able to coordinate and execute CAS and assault support in a major exercise; i.e. CAX, SACCEX, SOCEX, JTFEX. Additionally, Full Combat Qualified FACs exceed JCAS AP MOA requirements.

c. 7502 JTAC Currency and Evaluation Requirements. JTAC currency requirements are 6 Type I or Type II controls within the previous six-month period. A minimum of 4 of the 6 required controls must be fixed wing. A minimum of 1 control every 6 months must include ordnance and 1 control shall be a night control. If a JTAC does not accomplish 6 controls in a six-month period he shall lose the JTAC qualification. For designated 7502s, controls conducted as a FAC(A) satisfy JTAC currency requirements. At a minimum, JTAC qualified individuals shall be evaluated every 18 months by a designated JTAC Evaluator.

(1) 7502s who do not maintain JTAC currency must complete the following events under the supervision of a qualified Marine JTAC appointed by the unit AO:

<u>After 6 Months</u>	<u>After 9 Months</u>	<u>After 12 Months</u>	<u>After 24 Months</u>
OPS-201	OPS-201	OPS-201	Loss of Qualification
OPS-203	OPS-202	OPS-202	EWTG TACP Course
OPS-207	OPS-203	OPS-203	
OPS-208	OPS-204	OPS-204	
	OPS-207	OPS-205	
	OPS-208	OPS-207	
		OPS-208	

(2) After 24 months, 7502s are no longer JTAC qualified and must complete the EWTG TACP Course.

d. Successful Terminal Control. For the purposes of this document, control of a single CAS aircraft attack that results in the terminal controller issuing a "cleared hot", "cleared to engage," "continue dry," or "abort" shall be considered one successful terminal control.

e. During execution of 300- and 400-level syllabus events, consideration shall be given to planning, briefing, and execution of types II and III CAS control. Range regulations and equipment allowing, type II and III CAS controls should be executed when appropriate.

f. SIMCAS. SIMCAS shall be avoided to the maximum extent possible during training events. During the Combat Qualified phase no more than 4 day controls and 2 night controls shall be simulated. For Refresher controls, SIMCAS will be conducted at the discretion of the instructor/evaluator.

g. Ordnance. Live ordnance should be used to the maximum extent possible. Live ordnance may consist of any free fall or forward firing ordnance with a live

warhead. The use of inert training ordnance, such as BDUs or other weapons with an inert warhead, is acceptable.



208.1 COMBAT CAPABLE PHASE

1. This training shall be conducted at EWTG. All training shall be documented in the FAC/AO training jacket per Appendix C. The FAC/AO must successfully complete at least 12 controls; 8 of the 12 must be fixed wing, 2 of the 12 must be at night. Upon completion of this phase the student shall receive the 7502 MOS and the unit commander may issue a JTAC Qualification letter.

2. Mission oriented training events

OPS-200      0.5              E              F/S

Goal. Conduct artillery or mortar "calls for fire."

Requirement. Conduct 2 call for fire missions with an indirect fire asset. Use grid, polar, or shift from a known point method of target location, utilizing doctrinal calls.

Performance Standards. Within 3 rounds adjust fire to within 100 meters of intended target.

Prerequisite. None.

External Syllabus Support. One firing unit of artillery or mortars.

Ordnance. Minimum of 12 rounds required.

OPS-201      0.5              E              F

Goal. Control fixed wing aircraft attacks in a permissive environment on marked or unmarked targets.

Requirement. Control a CAS mission with fixed wing aircraft in a permissive threat environment. Artillery or mortar rounds for marking should be used. Two terminal controls required for completion.

Performance Standards. Using doctrinal control procedures, control a section of fixed wing aircraft on an unmarked or marked target. Provide timely corrections and BDA.

Prerequisite. None.

External Syllabus Support. One firing unit of artillery or mortars. One section of fixed wing aircraft.

Ordnance. Minimum of 2 Mk 80 series bombs or equivalent. Two indirect fire marking rounds (WP, RP, or Illum).

OPS-202      0.5              E              F

Goal. Control a section of fixed wing aircraft on a marked or unmarked target in a restrictive threat environment.

Requirement. Control a CAS mission with fixed wing aircraft in a restrictive threat environment. Artillery or mortar rounds for marking shall be used. Two terminal controls required for completion.

Performance Standards. Using doctrinal control procedures, control a section of fixed wing aircraft on a marked or unmarked target. Provide timely corrections and BDA.

Prerequisite. None.

External Syllabus Support. One firing unit of artillery or mortars. One section of fixed wing aircraft.

Ordnance. A minimum of 2 Mk 80 series bombs or equivalent. Two indirect fire marking rounds (WP, RP, or Illum).

OPS-203      0.5                      E                      F

Goal. Control rotary wing aircraft attacks on a marked or unmarked target.

Requirement. Control a CAS mission with a section of rotary wing aircraft on a marked or unmarked target. Two terminal controls required for completion.

Performance Standards. Using doctrinal control procedures, control a section of rotary wing aircraft on a marked or unmarked target. Provide timely corrections and BDA. Two attacks required for completion.

Prerequisite. None.

External Syllabus Support. One firing unit of artillery or mortars. One section of rotary wing aircraft.

Ordnance. Two rockets or a PGM and 100 rounds. Two indirect fire marking rounds (WP, RP, or Illum).

OPS-204      0.5                      E                      F

Goal. Control restrictive threat attacks on a marked or unmarked target while employing continuous Suppression of Enemy Air Defense (SEAD) fires.

Requirement. Control a restrictive threat CAS mission with a section of fixed wing or rotary wing aircraft on a marked or unmarked target. Coordinate continuous SEAD with artillery and or mortars. Two terminal controls required for completion.

Performance Standards. Using doctrinal control procedures, control a section of fixed wing or rotary wing aircraft on a marked or unmarked target. Provide timely corrections and BDA.

Prerequisite. If fixed wing CAS is used - OPS-201; if rotary wing CAS is used - OPS-203.

External Syllabus Support. One firing unit of artillery and/or mortars. One section of fixed wing or rotary wing aircraft.

Ordnance. Fixed wing: a minimum of 2 Mk 80 series bombs or equivalent. Rotary wing: 2 rockets or a PGM and 100 rounds. Two indirect fire marking rounds (WP, RP, or Illum) and 5 HE suppression rounds.

OPS-205      0.5                      E                      F

Goal. Control restrictive threat attacks on a marked or unmarked target while employing interrupted or non-standard SEAD fires.

Requirement. Control a restrictive threat CAS mission with a section of fixed wing or rotary wing aircraft on a marked or unmarked target. Coordinate interrupted or non-standard SEAD with artillery and or mortars. Two terminal controls required for completion.

Performance Standards. Using doctrinal control procedures, control a section of fixed wing or rotary wing aircraft on a marked or unmarked target. Provide timely corrections and BDA.

Prerequisite. If fixed wing CAS is used - OPS-201; if rotary wing CAS is used - OPS-203.

External Syllabus Support. One firing unit of artillery and or mortars. One section of fixed wing or rotary wing aircraft.

Ordnance. Fixed wing: a minimum of 2 Mk 80 series bombs or equivalent. Rotary wing: 2 rockets or a PGM and 100 rounds. Two indirect fire marking rounds (WP, RP, or Illum) and 4 HE Suppression rounds.

OPS-206      0.5                      E                      F/S N

Goal. Observe control of artillery or mortar "call for fire" at night.

Requirement. Observe 1 coordinated illumination mission at night.

Prerequisite. OPS-200.

External Syllabus Support. One firing unit of artillery or mortars.

Ordnance. A minimum of 1 mark (WP, RP), 2 HE, and 6 illumination rounds required.

OPS-207      0.5                      E                      F/N

Goal. Control a CAS mission at night with a section of fixed wing or rotary wing aircraft using battlespace illumination and/or IR Pointer.

Requirement. Control a CAS mission with fixed wing or rotary wing aircraft at night in conjunction with target illumination. Artillery, mortars, IR pointer, or laser shall mark the target. Two terminal controls required for completion.

Performance Standards. Using doctrinal control procedures, control a section of fixed wing or rotary wing aircraft at night utilizing illumination on a marked target. Provide timely corrections and BDA.

Prerequisite. If fixed wing CAS is used - OPS-201; if rotary wing CAS is used - OPS-203.

External Syllabus Support. One indirect fire unit, IR pointer, or LASER. One section of fixed wing or rotary wing aircraft.

Ordnance. Fixed wing: a minimum of 2 Mk 80 series bombs or equivalent. Rotary wing: 2 rockets or a PGM and 100 rounds. Minimum of 1 mark (WP, RP), and 2 illumination rounds required.

OPS-208      0.5              E              F/N

Goal. Control a CAS mission at night with a section of fixed wing or rotary wing aircraft utilizing night vision devices (NVD) and or IR/Laser marking devices.

Requirement. Control a CAS mission with fixed wing or rotary wing aircraft at night while utilizing NVDs. Artillery, mortars, and or IR/Laser marking devices shall mark the target. Two terminal controls required for completion.

Performance Standards. Using doctrinal control procedures, control a section of fixed wing or rotary wing aircraft at night utilizing night vision devices on a marked target. Provide timely corrections and BDA.

Prerequisite. If fixed wing CAS is used - OPS-201; if rotary wing CAS is used - OPS-203.

External Syllabus Support. One firing unit of artillery or mortars. One section of fixed wing or rotary wing aircraft.

Ordnance. Fixed wing: a minimum of 2 Mk 80 series bombs or equivalent. Rotary wing: 2 rockets or a PGM and 100 rounds. Minimum of 1 mark (WP, RP) as required.

## 208.2 FULL COMBAT QUALIFIED PHASE

1. Purpose. To develop proficiency in the employment of assault support aircraft and CAS techniques.

2. Requirements. The FAC/AO shall control the delivery of Precision Guided Munitions (PGMs), employ assault support aircraft, and integrate FAC(A) aircraft.

a. Laser Employment. The use of a laser designator to mark targets is highly encouraged during training events. At a minimum, a laser mark shall be employed for the designated OPS codes.

b. PGMs. Demonstration of PGM employment is highly encouraged during training.

c. FAC(A). Demonstration of FAC(A) coordination with the TACP is highly encouraged during training.

d. Live Ordnance. The employment of live ordnance enhances Full Combat Qualified training and shall be used to the maximum extent possible.

e. MACCS Integration. A JTAR shall be used to request CAS at a minimum of 1 mission during this phase of training.

OPS-300      0.5                      E                      F

Goal. FAC(A) integration.

Requirement. Discuss the aircraft that are FAC(A) capable and how to employ them. Employ FAC(A) as an extension of the TACP for the control of CAS missions.

Performance Standards. Successfully integrate a FAC(A) using doctrinal procedures to attack a target with a section of CAS aircraft.

Prerequisites. Combat Capable phase complete.

External Syllabus Support. One firing unit of artillery or mortars as appropriate. One section of CAS aircraft and 1 FAC(A) aircraft.

Ordnance. Fixed wing: a minimum of 2 Mk 80 series bombs or equivalent. Rotary wing: 2 rockets or a PGM and 100 rounds. Two FAC(A) marking rounds or 2 indirect fire marking rounds (WP, RP, or Illum) as appropriate.

OPS-301      0.5                      E                      F

Goal. Control delivery of PGMs on a marked target.

Requirement. Discuss different types of PGMs and their employment capabilities and limitations. Discuss PGM to target match. Discuss current target location error with current systems. Control 1 CAS mission with fixed wing or rotary wing aircraft on a target. Recommended 2 simulated attacks prior to PGM delivery. One terminal control is required for completion.

Performance Standards. Using doctrinal control procedures, control a fixed wing or rotary wing aircraft conducting a PGM attack on a marked or unmarked target.

Prerequisites. Combat Capable phase complete.

External Syllabus Support. One firing unit of artillery or mortars, as required. One fixed wing or rotary wing attack aircraft.

Ordnance. One PGM. One mark (WP, RP, illumination), as required.

OPS-302      2.0                      E                      F

Goal. Request and control a simulated CASEVAC mission.

Requirement. Discuss mission precedence and LZ considerations to include marking for day and night pickup. Construct and transmit a CASEVAC request to the DASC or appropriate agency. Coordinate LZ preparation and supervise evacuation of the simulated CASEVAC personnel.

Performance Standards. Using doctrinal request and control procedures, successfully coordinate an assault support aircraft on a CASEVAC mission.

Prerequisites. Combat Capable phase complete.

External Syllabus Support. DASC or appropriate agency.  
One assault support aircraft.

OPS-303      2.0              E              F

Goal. Request and control a platoon or company sized troop lift.

Requirement. Discuss Helo Serial Wave Assignment Table, Bump plan, LZ selection, single lift versus waves, and go/no go criteria. Select a suitable LZ. Construct and transmit an Assault Support Request (ASR) to the DASC or appropriate agency. Control the LZ for tactical pickup.

Performance Standards. Using doctrinal request and control procedures, successfully coordinate assault support aircraft on a troop lift mission.

Prerequisite. Combat Capable phase complete.

External Syllabus Support. DASC or appropriate agency.  
Three assault support aircraft.

OPS-304      2.0              E              F/N

Goal. Request and control a night platoon or company sized troop lift.

Requirement. Discuss zone marking, A/C marking, and stick identification. Select a suitable LZ. Construct and transmit an ASR to the DASC or appropriate agency. Control the LZ for tactical pickup.

Performance Standards. Using doctrinal request and control procedures, successfully coordinate assault support aircraft on a troop lift mission at night.

Prerequisites. OPS-303.

External Syllabus Support. DASC or appropriate agency.  
Three assault support aircraft.

### 208.3 ADVANCED TRAINING PHASE

1. Purpose. To develop proficiency in the employment of assault support aircraft and advanced CAS techniques.

2. Requirements. The FAC will control the delivery of PGMs, practice allied CAS procedures, employ assault support aircraft, integrate FAC(A) aircraft, and control CAS in an urban environment.

### 3. Mission oriented training events

OPS-400      0.5                      E                      F

Goal. Control combined attacks by multiple sections in a target area.

Requirement. Discuss Joint Air Attack Teams (JAAT) techniques. Control multiple sections of CAS aircraft in a combined or sectored attack. Coordinate SEAD as appropriate. Four terminal controls required for completion.

Performance Standards. Using doctrinal control procedures, control multiple sections of CAS aircraft on a marked or unmarked target.

Prerequisite. Combat Capable phase complete.

External Syllabus Support. One firing unit of artillery and or mortars as required. Multiple sections of CAS aircraft.

Ordnance. Fixed wing requires a minimum of 2 Mk 80 series bombs or equivalent per section. Rotary wing requires 2 rockets or a PGM, and 100 rounds per section. A minimum of 1 mark (WP, RP), and 2 illumination rounds as required.

OPS-401      0.5                      E                      F

Goal. Control CAS attacks on a target utilizing allied CAS procedures specified in Allied Tactical Publication 63 (Tactics, Techniques and Procedures for Close Air Support Operations)(ATP-63).

Requirement. Discuss the NATO CAS brief and the difference between it and the 9-line brief. Control a mission with allied CAS aircraft. Use allied CAS procedures to construct CAS briefings and target attacks. Two terminal controls required for completion.

Performance Standards. Using allied control procedures, control a section of CAS aircraft on a marked or unmarked target.

Prerequisites. Combat Capable phase complete.

External Syllabus Support. One firing unit of artillery or mortars as appropriate. One section of CAS aircraft.

Ordnance. Fixed wing: a minimum of 2 Mk 80 series bombs or equivalent. Rotary wing: rockets or a PGM and 100 rounds. Two indirect fire marking rounds (WP, RP, or Illum) as appropriate.

OPS-402      0.5                      E                      F

Goal. Control a day Urban CAS mission with a section of CAS aircraft.

Requirement. Discuss the effects of different munitions in an urban environment. Discuss the limitations of TACP gear in the urban environment. Discuss how to divide an urban environment to facilitate targeting. Control a CAS mission with a section of CAS aircraft on a

marked or unmarked target in an urban environment. Two terminal controls required for completion.

Performance Standards. Using doctrinal control procedures, control a section of CAS aircraft on a marked or unmarked target in an urban environment. Provide timely corrections and BDA.

Prerequisites. Combat Capable phase complete.

External Syllabus Support. One firing unit of artillery or mortars as appropriate. One section of CAS aircraft.

Ordnance. As required.

OPS-403      0.5                      E                      F/N

Goal. Control a night Urban CAS mission with a section of CAS aircraft.

Requirement. Discuss how artificial illumination affects the use of NVDs. Control a night Urban CAS mission with a section of CAS aircraft on an appropriately marked target. Utilize NVDs as appropriate. Two terminal controls required for completion.

Performance Standards. Using doctrinal control procedures, control a section of CAS aircraft in a night urban CAS environment. Provide timely corrections and BDA.

Prerequisites. OPS-402 and Combat Capable phase complete.

External Syllabus Support. One firing unit of artillery or mortars as appropriate. One section of CAS aircraft.

Ordnance. As required.

OPS-404      0.5                      E                      F

Goal. Control a CAS mission with an AC-130.

Requirement. Discuss the AC-130 "Call for Fire." Control a day or night CAS mission with an AC-130 aircraft on a target utilizing the AC-130 "Call for Fire" as per MCWP 3-23.1 or JCAS 3-09.1. Two terminal controls required for completion.

Performance Standards. Using doctrinal control procedures, control an AC-130 aircraft. Provide timely corrections and BDA.

Prerequisites. Combat Capable phase complete.

External Syllabus Support. Marking devices as required. One AC-130 aircraft.

Ordnance. As required.



#### 208.4 INSTRUCTOR QUALIFICATION PHASE

1. Purpose. To develop proficiency in the instruction of student terminal controllers, TACP safety, airspace coordination and deconfliction.

2. Requirements. The qualified FAC or AO shall be assigned to EWTG and shall have a minimum of 1 year of experience as a FAC, AO or FAC(A). The FAC or AO shall complete an approved service instructor school or be a graduate of the MAWTS-1 WTI Course. While under the supervision of a qualified FAC(I) or JTAC(I), the Instructor Under Training (IUT) shall instruct a student terminal controller. Situational Awareness (SA) of the mission, timing, airspace and follow-on missions during day and night Fixed Wing (FW) and Rotary Wing (RW) missions. One day FW, 1 day RW and 1 night FW or RW mission shall be conducted for a total of 3 missions. One control shall utilize LASER geometry and planning, 1 control shall utilize an IR pointer, and 1 control shall use indirect fire marking rounds.

#### 3. Mission Oriented Training Events

<u>IUT-500</u>	<u>3.0</u>	<u>E</u>	<u>F</u>
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Goal. Maintain SA over TACP operations to include airspace and time deconfliction, adherence to range regulations, student training, ordnance usage, CAS tempo and overall mission safety.

Requirement. Act as TACP FSC for a minimum of 10 CAS missions and a total of 3 continuous hours.

Mission Performance Standards. Ensure all aircraft within the training airspace are safely deconflicted. Ensure appropriate operational tempo is maintained. Demonstrate high SA through out the exercise. Ensure mortar and artillery ordnance is expended at the proper rate. Ensure LASER operations are conducted safely. Ensure all range regulations are adhered to. Correct unsafe trends by CAS aircraft, Supporting Arms or TACP personnel. Ensure the student training schedule/TACP Air Plan is adhered to.

Prerequisite. Combat Capable phase complete.

Ordnance. N/A

<u>IUT-501</u>	<u>3.0</u>	<u>E</u>	<u>F</u>
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Goal. Instruct a student terminal controller, controlling FW aircraft on a marked target while conducting SEAD.

Requirement. Instruct for a minimum of 2 Day, Type I FW controls. The target must be marked by artillery, mortars, naval gunfire, or LASER designator. Student must coordinate SEAD with indirect fires.

Performance Standards. Ensure CAS brief is safe and correct. Ensure SEAD is properly coordinated/deconflicted and implemented into the mission. Ensure the student knows the SEAD and CAS timelines. Ensure CAS brief is delivered correctly to the CAS aircraft. Ensure a mark is coordinated and implemented correctly. Monitor and correct student communications with the CAS aircraft. Ensure marking corrections are timely and correct. Ensure the CAS aircraft meet clearance criteria prior to student communication of "Cleared Hot." Monitor mission

safety at all times. Conduct a thorough debrief with the student terminal controller.

Prerequisite. Combat Capable phase complete.

Ordnance. A section of FW aircraft. A minimum of 2 Mk-80 series bombs or equivalent. Two indirect fire marking rounds (WP, RP, or Illum) and 5 HE suppression rounds.

IUT-502

3.0 E F

Goal. Instruct a student terminal controller, controlling RW aircraft on a marked target while conducting SEAD.

Requirement. Instruct for a minimum of 2 Day, Type I RW controls. The target must be marked by artillery, mortars, naval gunfire, or LASER designator. Student must coordinate SEAD with indirect fires.

Performance Standards. Ensure CAS brief is safe and correct. Ensure SEAD is properly coordinated and implemented into the mission. Ensure the student knows the SEAD and CAS timelines. Ensure CAS brief is delivered correctly to the CAS aircraft. Ensure a mark is coordinated and implemented correctly. Monitor and correct student communications with the CAS aircraft. Ensure marking corrections are timely and correct. Ensure the CAS aircraft meet clearance criteria prior to student communication of "Cleared Hot." Monitor mission safety at all times. Conduct a thorough debrief with the student terminal controller.

Prerequisite. Combat Capable phase complete.

Ordnance. RW: two rockets or a PGM and 100 rounds. Two indirect fire marking rounds (WP, RP, or Illum) and 5 HE suppression rounds.

IUT-503

3.0 E F

Goal. Instruct a student terminal controller, controlling a section of FW or RW aircraft at night on a marked target in a permissive or restrictive threat environment.

Requirement. Instruct for a minimum of 2 Night, Type I FW/RW controls utilizing NVDs. The target must be marked by artillery, mortars or IR Pointer.

Performance Standards. Ensure CAS brief is safe and correct. Ensure CAS brief is delivered correctly to the CAS aircraft. Ensure a mark is coordinated and implemented correctly. Monitor and correct student communications with the CAS aircraft. Ensure marking corrections are timely and correct. Ensure the CAS aircraft meet clearance criteria prior to student communication "Cleared Hot." Monitor mission safety at all times. Conduct a thorough debrief with the student terminal controller.

Prerequisite. IUT-501 and 502.

External Syllabus Support. One firing unit of artillery, mortars, naval gunfire or IR Pointer. One section of FW or RW aircraft.

Ordnance. FW: a minimum of 2 Mk-80 series bombs or equivalent. RW: 2 rockets or a PGM and 100 rounds. Two indirect fire marking rounds (WP, RP, or Illum). IR Pointer may be substituted for indirect fire marking rounds.

4. 7502 T&R Matrix per Appendix A is provided as follows:

#### COMBAT CAPABLE PHASE

STAGE	EVENT	HOURS	PROFICENCY INTERVAL	R	REMARKS
OPS	200	0.5	365		EWTG
OPS	201	0.5	365	X	EWTG
OPS	202	0.5	365		EWTG
OPS	203	0.5	365	X	EWTG
OPS	204	0.5	365	X	EWTG
OPS	205	0.5	365	X	EWTG
OPS	206	0.5	365		EWTG, N
OPS	207	0.5	365	X	EWTG, N
OPS	208	0.5	365	X	EWTG, N

#### FULL COMBAT QUALIFIED PHASE

STAGE	EVENT	HOURS	PROFICENCY INTERVAL	REMARKS
OPS	300	0.5	365	OPFOR
OPS	301	0.5	365	OPFOR
OPS	302	2.0	365	OPFOR
OPS	303	2.0	365	OPFOR
OPS	304	2.0	365	OPFOR, N

#### ADVANCED TRAINING PHASE

STAGE	EVENT	HOURS	PROFICENCY INTERVAL	REMARKS
OPS	400	0.5	365	OPFOR
OPS	401	0.5	365	OPFOR
OPS	402	0.5	365	OPFOR
OPS	403	0.5	365	OPFOR, N
OPS	404	0.5	365	OPFOR

Figure 2-1.--7502 T&R Matrix.

5. 7502 Event Update Chaining per Appendix A is provided as follows:

<u>EVENT</u>	<u>EVENTS UPDATED</u>
200	
201	
202	201
203	
204	203, 202, 201
205	203, 202, 201
206	200
207	203, 202, 201
208	207, 203, 202, 201
300	203, 202, 201
300(N)	208, 207, 203, 202, 201
301	203, 202, 201
301(N)	208, 207, 203, 202, 201
302	
303	
304	303
400	205, 204, 203, 202, 201
400(N)	208, 207, 205, 204, 203, 202, 201
401	
402	203, 202, 201
403	402, 208, 207, 203, 202, 201
404	

Figure 2-2.--7502 Event Update Chaining.

6. 7502 Syllabus Event Conversion Matrix is provided as follows:

NEW TRNG CODE	OLD TRNG CODE
200	200
201	201
202	202
203	203
204	204
205	205
206	300
207	301
208	302
300	406
301	401
302	402
303	403
304	404
400	400
401	405
402	407
403	408
404	409

Figure 2-3.--7502 Syllabus Event Conversion Matrix.

# T&R MANUAL, TACP

## CHAPTER 3

### JOINT TERMINAL ATTACK CONTROLLER (JTAC) 9986

	<u>PARAGRAPH</u>	<u>PAGE</u>
MISSION.....	300	3-3
JTAC PREREQUISITES.....	301	3-3
9986 MISSION ESSENTIAL TASK LIST (METL).....	302	3-3
PROGRAMS OF INSTRUCTION.....	303	3-3
ACADEMIC TRAINING.....	304	3-4
COURSES OF INSTRUCTION.....	305	3-4
TRAINING REFERENCES.....	306	3-4
EVENT TRAINING SUMMARY.....	307	3-5
EVENT PERFORMANCE REQUIREMENTS.....	308	3-7
COMBAT PRIMER PHASE.....	308.1	3-8
COMBAT CAPABLE PHASE.....	308.2	3-11
FULL COMBAT QUALIFIED PHASE.....	308.3	3-14
ADVANCED TRAINING PHASE.....	308.4	3-17
INSTRUCTOR QUALIFICATION PHASE.....	308.5	3-21

## FIGURES

3-1	9986 T&R MATRIX.....	3-24
3-2	9986 EVENT UPDATE CHAINING.....	3-25



CHAPTER 3

JOINT TERMINAL ATTACK CONTROLLER (JTAC) 9986

300. MISSION

1. Introduction. The Marine JTAC training plan is a building block process that is designed to incorporate classroom instruction, practical application, simulation, aviation familiarization, live fire offensive air support execution, and a prescribed certification/sustainment program. The Marine JTAC training process will provide qualified JTACs for the Total Force.

2. A Marine JTAC is a ground combat arms officer or staff NCO who, from a forward position, directs the action of combat aircraft engaged in CAS and TGO. A qualified and current JTAC is recognized across the DoD as capable and authorized to conduct joint terminal attack control.

301. JTAC PREREQUISITES. Marine JTAC candidates shall adhere to the provisions of MCO P1200.7 and meet the following prerequisite criteria prior to beginning training:

a. Ground Combat Arms Officer with primary Military Occupational Specialty (MOS) 03XX, 0802, or 18XX

OR

Ground Combat Arms SNCO with primary MOS 0369, 0861, 0321, or 18XX.

b. Possess a Secret clearance.

c. Possess an English comprehension level of 3 or higher.

d. Normal color vision and correctable to 20/20.

e. GT score of 110 or higher.

f. Must have 2 years of obligated service remaining upon completion of TACP course.

302. 9986 MISSION ESSENTIAL TASK LIST. JTACs are required to perform tasks as listed in Duty areas 1-8 per Appendix E.

303. PROGRAMS OF INSTRUCTION. The initial mission essential task/skill training for a prospective JTAC is the JTAC Primer Course or the JTAC Distance-Learning (DL) course. The JTAC Primer Course is conducted at EWTG and consists of academic lectures and practical application. The JTAC DL course is under development; all prospective JTACs must attend the JTAC Primer course until the JTAC DL course is approved. After completing the JTAC Primer Course training, the prospective JTAC shall accomplish aviation familiarization and live fire execution events under the direct supervision of a qualified Marine JTAC (MOS 7502/9986) appointed by the unit AO. The supervising Marine JTAC shall document the successful completion of the 100-level T&R events in the JTAC training jacket. The prospective JTAC, after completion of the 100-level T&R, shall be assigned by the JTAC occupational field sponsor to attend the TACP course. Upon successful completion of the TACP course, the JTAC shall be designated a 9986 and return to the operating forces for completion of the Full Combat Qualified phase under the direct supervision of a JTAC qualified and current 7502. The supervising 7502 shall document the



successful completion of the 300-level T&R. Upon completion of the Full Combat Qualification phase, the unit commander may issue the individual a JTAC Qualification letter. The JTAC T&R allows for growth in the 400-level for training beyond the Terminal Attack Control phase by incorporating the remaining functions of Marine aviation.

1. POI for Basic Marine JTAC

<u>WEEKS</u>	<u>COURSE/PHASE</u>	<u>ACTIVITY</u>
1	JTAC Primer Course	EWTG
2-6	Combat Primer Phase	OPFOR
7-9	TACP Course/Combat Capable Phase	EWTG
10-18	Full Combat Qualified Phase	OPFOR
19-26	Advanced Training Phase	OPFOR

2. POI for Refresher Marine JTAC

<u>WEEKS</u>	<u>COURSE/PHASE</u>	<u>ACTIVITY</u>
1-3	TACP Course	EWTG

3. POI for JTAC(I)

<u>WEEKS</u>	<u>COURSE/PHASE</u>	<u>ACTIVITY</u>
1-3	JTAC(I) Course	EWTG

304. ACADEMIC TRAINING. 9986 academic requirements consist of the Distance Learning Course/EWTG read-ahead package, JTAC Primer course, and the TACP course.

305. COURSES OF INSTRUCTION

<u>COURSE</u>	<u>ACTIVITY</u>
JTAC Primer Course	EWTG
Tactical Air Control Party Course (TACP)	EWTG
Fire Support Coordination Course (FSCC)	EWTG (optional)
JTAC(I) Course	EWTG

306. TRAINING REFERENCES. The following source documents should be reviewed prior to applicable field events:

Doctrine for Joint Fire Support (Joint Pub 3-09)  
 Joint Tactics, Techniques, and Procedures for Close Air Support (JP 3-09.3)  
 Supporting Arms Observer, Spotter, and Controller (MCWP 3-16.6)  
 Joint Suppression of Enemy Air Defense (J-SEAD), Multi-Service Tactics, Techniques and Procedures, Air Land Sea Application Center (ALSA)  
 Military Operations on Urban Terrain (MCWP 3-35.3)  
 Close Air Support (MCWP 3-16)  
 Patient Movement (MCWP 4-11.2)  
 Assault Support (MCWP 3-24)  
 Tactical Fundamentals of Helicopterborne Operations (MCWP 3-11.4)  
 MAGTF Aviation Planning (MCWP 5-11.1)  
 Multi-Service Helicopter Sling Load: Basic Operations Volume I (MCRP 4-11.3E)  
 Aviation Planning Documents (MCRP 5-11.1A)  
 MAWTS-1 Academic Support Package  
 MAWTS-1 FAC(A) Handbook, Planning and Mission Execution  
 MAWTS-1 NVD Manual  
 MAWTS-1 MOUT Manual  
 USMC Rotary wing TACSOP

307. EVENT TRAINING SUMMARY1. Basic 9986 POI SummaryCombat Primer Phase TrainingSTAGE I (JTAC Primer Course)

	<u>EVENTS</u>	<u>HOURS</u>
Academic Lectures	8	12.0
Practical Application	6	8.0
<u>Simulator Training</u>	<u>4</u>	<u>16.0</u>
Totals	18	36.0

STAGE II (100 LEVEL T&R)

	<u>EVENTS</u>	<u>HOURS</u>
Aircrew CAS Brief/Debrief	1	6.0
Observe aviation C2	1	8.0
Arty/Mortar/NGF "Call for Fire"	1	0.5
FW CAS/SIMCAS	1	1.0
<u>RW CAS/SIMCAS</u>	<u>1</u>	<u>1.0</u>
Totals	5	16.5

Combat Capable Phase Training

	<u>EVENTS</u>	<u>HOURS</u>
Academic Lectures	34	48.0
Practical Application	4	16.0
Simulator Training	6	16.0
Artillery/Mortar "Call for Fire"	2	1.0
FW CAS, Permissive Environment	1	0.5
FW CAS, Restrictive Environment	1	0.5
RW CAS	1	0.5
CAS w/Continuous SEAD	1	0.5
CAS w/Int or Non-standard SEAD	1	0.5
<u>CAS w/NVD and/or IR/Laser mark</u>	<u>2</u>	<u>1.0</u>
Totals	53	84.5

Full Combat Qualified Phase Training

	<u>EVENTS</u>	<u>HOURS</u>
Plan and Control FW	2	2.5
Plan and Control RW	2	2.5
Plan and Control LCAS	2	2.5
Plan and Control IR FW	1	2.5
<u>Plan and Control IR RW</u>	<u>1</u>	<u>2.5</u>
Totals	8	12.5

Advanced Phase Training

	<u>EVENTS</u>	<u>HOURS</u>
Combined Attacks w/Multi Sections	1	0.5
PGM CAS	1	0.5
Simulated CASEVAC	1	2.0
Day Troop Lift	1	2.0
Night Troop Lift	1	2.0
Allied CAS Procedures	1	0.5
FAC(A) Integration	1	0.5
Day Urban CAS	1	0.5
Night Urban CAS	1	0.5
<u>CAS w/AC-130</u>	<u>1</u>	<u>0.5</u>
Totals	10	9.5

	<u>EVENTS</u>	<u>HOURS</u>
Basic Syllabus Totals	94	159.0

2. Refresher 9986 POI SummaryCombat Primer Phase Training

N/A

Combat Capable Phase Training

	<u>EVENTS</u>	<u>HOURS</u>
Academic Lectures	34	48.0
Practical Application	4	16.0
Simulator Training	6	16.0
FW CAS, Permissive Environment	1	0.5
Rotary wing CAS	1	0.5
CAS w/Continuous SEAD	1	0.5
CAS w/Int or Non-standard SEAD	1	0.5
<u>CAS w/NVD and/or IR/Laser mark</u>	<u>2</u>	<u>1.0</u>
Totals	50	83.0

	<u>EVENTS</u>	<u>HOURS</u>
Refresher syllabus totals:	50	83.0

3. JTAC Instructor POI Summary

	<u>EVENTS</u>	<u>HOURS</u>
Academic Lectures	34	48.0
Practical Application	4	16.0
<u>Simulator Training</u>	<u>6</u>	<u>16.0</u>
Totals	44	80.0

	<u>EVENTS</u>	<u>HOURS</u>
Instructor syllabus totals:	44	80.0

308. EVENT PERFORMANCE REQUIREMENTS1. General

a. Documentation. 9986 T&R requirements shall be documented on common JTAC Training Forms, which shall be filed in individual IPRs. JTAC IPRs shall be maintained at the respective unit level operations department. The unit level operations department shall ensure that JTACs maintain required currency obligations. The operations department shall track and document semi-annual and annual currency requirements to include periodic/stage evaluations.

b. The Combat Capable JTAC shall participate in a major exercise as a TAC (e.g. CAX, SACCEX, SOCEX, JTFEX) to acquire the experience necessary to become a Full Combat Qualified JTAC. These controls may count toward T&R and currency requirements.

c. JTAC Certification and Qualification. 9986 MOS individuals that meet the specified JTAC prerequisites and successfully complete the Basic JTAC POI through the Combat Capable curriculum as defined in this Manual shall receive the JTAC skill designator. A Combat Capable JTAC may issue appropriate attack clearance under the direct supervision of a JTAC qualified and designated 7502. JTACs that have successfully completed the Basic JTAC POI through the Full Combat qualified phase may be issued a JTAC qualification letter by the unit commanding officer. Qualified JTACs may conduct unsupervised CAS operations.

d. JTAC Currency and Evaluation Requirements. JTAC currency requirements are 6 Type I or Type II controls within the previous 6-month period. A minimum of 4 of the 6 required controls must be FW. A minimum of 1 control every 6 months must include live ordnance and 1 control shall be a night control. If a JTAC does not accomplish 6 controls in a 6-month period they shall lose the JTAC qualification. JTAC qualified individuals shall be evaluated every 18 months by a designated JTAC Evaluator.

(1) JTACs who do not maintain currency must complete the following events under the supervision of a qualified Marine JTAC appointed by the unit AO:

<u>After 6 Months</u>	<u>After 9 Months</u>	<u>After 12 Months</u>	<u>After 24 Months</u>
OPS-201	OPS-201	OPS-201	Loss of Qualification
OPS-203	OPS-202	OPS-202	EWTG TACP Course
OPS-207	OPS-203	OPS-203	
OPS-208	OPS-204	OPS-204	
	OPS-207	OPS-205	
	OPS-208	OPS-207	
		OPS-208	

(2) After 24 months, 7502s are no longer JTAC qualified and must complete the EWTG TACP Course.

e. Successful Terminal Control. For the purposes of this document, control of a single CAS aircraft attack that results in the terminal controller issuing a "cleared hot," "cleared to engage," "continue dry," or "abort" shall be considered 1 successful terminal control.

f. During execution of 100-, 300-, and 400-level syllabus events, consideration shall be given to planning, briefing, and execution of Types II and

III CAS control; range regulations and equipment allowing, Types II and III CAS controls should be executed when appropriate.

g. Simulated CAS (SIMCAS). SIMCAS shall be avoided to the maximum extent possible during training events. During the Combat Qualified phase no more than 4 day controls and 2 night controls shall be simulated. For Refresher controls, SIMCAS will be conducted at the discretion of the instructor/evaluator.

h. Ordnance. Live ordnance should be used to the maximum extent possible. Live ordnance may consist of any free fall or forward firing ordnance with a live warhead. The use of inert training ordnance, such as BDUs or other weapons with an inert warhead is acceptable.

308.1 COMBAT PRIMER PHASE. This training shall be conducted at EWTG and at the OPFOR unit. OPFOR training shall be conducted and documented by the unit AO in the JTAC training jacket. Combat Primer phase training shall be supervised by a qualified JTAC. Upon successful completion of this phase, the prospective JTAC shall have successfully completed at least 4 FW and 4 RW controls.

#### 1. Mission oriented training events

<u>FAM-100</u>	<u>0.5</u>	<u>E</u>	<u>S/F</u>
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Goal. Conduct simulated artillery, mortar, or naval gunfire call for fire.

Requirement. Conduct 2 simulated adjust fire missions with an indirect fire asset. Use grid, polar, or shift from a known point method of target location.

Performance Standards. Within 3 rounds adjust fire to within 100 meters of intended target.

Prerequisite. JTAC Primer or JTAC DL Course.

External Syllabus Support. Terrain Puff Board or Forward Observer Training simulator.

<u>FAM-101</u>	<u>0.5</u>	<u>E</u>	<u>S/F</u>
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Goal. Conduct simulated artillery, mortar, or naval gunfire illumination mission.

Requirement. Conduct 2 illumination missions with an indirect fire asset.

Mission Performance Standards. Within 3 rounds adjust illumination to optimize target detection.

Prerequisite. JTAC Primer or JTAC DL Course.

External Syllabus Support. Terrain Puff Board or Forward Observer Training simulator.

FAM-102      1.0            E            S/F

Goal. Control simulated FW or RW aircraft attacks in a permissive environment on marked targets.

Requirement. Control a simulated CAS mission in a permissive threat environment. Simulated indirect marking rounds shall be used. Two simulated terminal controls required for completion.

Mission Performance Standards. Using doctrinal control procedures, control a simulated section of FW or RW aircraft on a marked target. Provide timely corrections and BDA.

Prerequisite. JTAC Primer or JTAC DL Course.

External Syllabus Support. Terrain Puff Board or Forward Observer Training simulator.

FAM-103      1.0            E            S/F

Goal. Control simulated FW or RW aircraft attacks in a permissive environment on unmarked targets.

Requirement. Control a simulated CAS mission in a permissive threat environment emphasizing talk-on techniques. Simulated indirect marking rounds shall not be used. Two simulated terminal controls required for completion.

Mission Performance Standards. Using doctrinal control procedures, control a simulated section of FW or RW aircraft on an unmarked target. Provide timely corrections and BDA.

Prerequisite. JTAC Primer or JTAC DL Course.

External Syllabus Support. Terrain Puff Board or Forward Observer Training simulator.

FAM-104      0.5            E            F

Goal. Control FW aircraft attacks in a permissive environment on marked or unmarked targets.

Requirement. Discuss CAS timeline to include mark type/time of flight, FW initial point to target timing, and wingman separation. Control a SIMCAS or CAS mission with FW aircraft in a permissive threat environment under the direct supervision of a qualified AO. Indirect fire assets, LASER, or IR pointers may be used for marking. Four terminal controls required for completion.

Mission Performance Standards. Using doctrinal control procedures, control a section of FW aircraft on an unmarked or marked target. Provide timely corrections and BDA.

Prerequisite. JTAC Primer or JTAC DL Course.

External Syllabus Support. One firing unit of artillery, mortars, NGF or LASER, IR pointer. One section of FW aircraft.

Ordnance. Two Mk 80 series bombs or equivalent if available. Marking asset.

FAM-105      0.5              E              F

Goal. Control RW aircraft attacks in a permissive environment on marked or unmarked targets.

Requirement. Discuss CAS timeline to include mark type/time of flight, holding area to target timing, and wingman separation. Discuss battle position to target relationship to include weapon engagement ranges, terrain masking, and communication. Control a SIMCAS or CAS mission with RW aircraft in a permissive threat environment under the direct supervision of a qualified AO. Indirect fire assets, LASER, or IR pointers may be used for marking. Four terminal controls required for completion.

Mission Performance Standards. Using doctrinal control procedures, control a section of RW aircraft on an unmarked or marked target. Provide timely corrections and BDA.

Prerequisite. JTAC Primer or JTAC DL Course.

External Syllabus Support. One firing unit of artillery, mortars, NGF or LASER, IR pointer. One section of rotary wing aircraft.

Ordnance. Rockets, guns, TOW or Hellfire missile, or Captive HF if available. Marking asset.

FAM-106      8.0              E              F/S

Goal. Observe a working Marine Aviation Command and Control System (MACCS) during a major exercise while flight operations are underway.

Requirement. Discuss procedural control techniques to include FW and rotary wing altitudes, speed, and route selection. Discuss DASC and Fire Support Coordination Center (FSCC) relationship, deconfliction techniques, and air support request routing procedures. Observe the routing and deconfliction of FW and RW aircraft performing offensive air support.

Mission Performance Standards. Process an Assault Support Request (ASR) or a Joint Tactical Air Request (JTAR).

Prerequisite. JTAC Primer or JTAC DL Course.

External Syllabus Support. An operational Command and Control Operation Center.

FAM-107      3.0              E

Goal. Attend an aircrew CAS brief and debrief.

Requirement. Discuss aircrew tactics as they pertain to the briefed threat, proper ordnance to target match, and aircrew briefing techniques. Observe mission planning, brief and debrief of an executed CAS mission.

Mission Performance Standards. N/A.

Prerequisite. JTAC Primer or JTAC DL Course.

External Syllabus Support. Squadron conducting CAS mission.

308.2 COMBAT CAPABLE PHASE. This training shall be conducted at EWTG. EWTG training will build upon the OPFOR training to include the 200-level events and shall be conducted and documented by the schoolhouse in the JTAC's training jacket. Upon successful completion of this phase, the JTAC shall have successfully completed at least 12 FW controls per JCAS AP MOA (4 FW controls during Combat Primer Phase, 8 FW Controls during Combat Capable Phase) and will receive a skill designator from training command (EWTG). The Combat Capable JTAC may conduct terminal control/guidance only under the direct supervision of a JTAC qualified 7502.

#### 1. Mission oriented training events

OPS-200      0.5              E              F/S

Goal. Conduct artillery or mortar call for fire.

Requirement. Conduct 2 call for fire missions with an indirect fire asset. Use grid, polar, or shift from a known point method of target location, utilizing doctrinal procedures.

Mission Performance Standards. Within 3 rounds, adjust fire to within 100 meters of intended target.

Prerequisite. Combat Primer phase complete.

External Syllabus Support. One firing unit of artillery or mortars.

Ordnance. Minimum of 12 rounds required.

OPS-201      0.5              E              F

Goal. Control FW aircraft attacks in a permissive environment on marked or unmarked targets.

Requirement. Control a CAS mission with FW aircraft in a permissive threat environment. Artillery or mortar rounds for marking should be used. Two terminal controls required for completion.

Mission Performance Standards. Using doctrinal control procedures, control a section of FW aircraft on an unmarked or marked target. Provide timely corrections and BDA.

Prerequisite. Combat Primer phase complete.

External Syllabus Support. One firing unit of artillery or mortars. One section of FW aircraft.

Ordnance. Minimum of 2 Mk 80 series bombs or equivalent. Two indirect fire marking rounds (WP, RP, or Illum).



OPS-202      0.5                      E                      F

Goal. Control a section of FW aircraft attacks in a restrictive threat environment on a marked target.

Requirement. Control a CAS mission with FW aircraft in a restrictive threat environment. Artillery or mortar rounds for marking shall be used. Two terminal controls required for completion.

Mission Performance Standards. Using doctrinal control procedures, control a section of FW aircraft on a marked or unmarked target. Provide timely corrections and BDA.

Prerequisite. Combat Primer phase complete.

External Syllabus Support. One firing unit of artillery or mortars. One section of FW aircraft.

Ordnance. A minimum of 2 Mk 80 series bombs or equivalent. Two indirect fire marking rounds (WP, RP, or Illum).

OPS-203      0.5                      E                      F

Goal. Control RW aircraft attacks on a marked target.

Requirement. Control a CAS mission with a section of RW aircraft on a marked target. Two terminal controls required for completion.

Mission Performance Standards. Using doctrinal control procedures, control a section of RW aircraft on a marked target. Provide timely corrections and BDA. Two terminal controls required for completion.

Prerequisite. Combat Primer phase complete.

External Syllabus Support. One firing unit of artillery or mortars. One section of RW aircraft.

Ordnance. Two rockets or a PGM and 100 rounds. Two indirect fire marking rounds (WP, RP, or Illum).

OPS-204      0.5                      E                      F

Goal. Control restrictive threat attacks on a marked target while employing continuous Suppression of Enemy Air Defense (SEAD) fires.

Requirement. Control a restrictive threat CAS mission with a section of FW or RW aircraft on a marked target. Coordinate continuous SEAD with artillery and or mortars. Two terminal controls required for completion.

Mission Performance Standards. Using doctrinal control procedures, control a section of FW or RW aircraft on a marked target. Provide timely corrections and BDA.

Prerequisite. If FW CAS is used - OPS-201; if RW CAS is used - OPS-203.

External Syllabus Support. One firing unit of artillery and/or mortars. One section of FW or RW aircraft.

Ordnance. FW: a minimum of 2 Mk 80 series bombs or equivalent. RW: 2 rockets or a PGM and 100 rounds. Two indirect fire marking rounds (WP, RP, or Illum) and 5 HE suppression rounds.

OPS-205      0.5                      E                      F

Goal. Control restrictive threat attacks on a marked or unmarked target while employing interrupted or non-standard SEAD fires.

Requirement. Control a restrictive threat CAS mission with a section of FW or RW aircraft on a marked or unmarked target. Coordinate interrupted or non-standard SEAD with artillery and or mortars. Two terminal controls required for completion.

Mission Performance Standards. Using doctrinal control procedures, control a section of FW or RW aircraft on a marked or unmarked target. Provide timely corrections and BDA.

Prerequisite. If FW CAS is used - OPS-201; if RW CAS is used - OPS-203.

External Syllabus Support. One firing unit of artillery and or mortars. One section of FW or RW aircraft.

Ordnance. FW: a minimum of 2 Mk 80 series bombs or equivalent. RW: 2 rockets or a PGM and 100 rounds. Two indirect fire marking rounds (WP, RP, or Illum) and 4 HE Suppression rounds.

OPS-206      0.5                      E                      F/S N

Goal. Observe control of artillery or mortar "call for fire" at night.

Requirement. Observe one coordinated illumination mission at night.

Prerequisite. OPS-200.

External Syllabus Support. One firing unit of artillery or mortars.

Ordnance. A minimum of 1 mark (WP, RP), 2 HE, and 6 illumination rounds required.

OPS-207      0.5                      E                      F/N

Goal. Control a CAS mission at night with a section of FW or RW aircraft using battlespace illumination and/or IR Pointer.

Requirement. Control a CAS mission with FW or RW aircraft at night in conjunction with target illumination. Artillery, mortars, IR pointer, or laser shall mark the target. Two terminal controls required for completion.

Mission Performance Standards. Using doctrinal control procedures, control a section of FW or RW aircraft at night utilizing illumination on a marked target. Provide timely corrections and BDA.

Prerequisite. If FW CAS is used - OPS-201; if RW CAS is used - OPS-203.

External Syllabus Support. One indirect fire unit, IR pointer, or LASER. One section of FW or RW aircraft.

Ordnance. FW: a minimum of 2 Mk 80 series bombs or equivalent. RW: 2 rockets or a PGM and 100 rounds. Minimum of 1 mark (WP, RP), and 2 illumination rounds required.

OPS-208      0.5              E              F/N

Goal. Control a CAS mission at night with a section of FW or RW aircraft utilizing Night Vision Devices (NVD) and or IR/Laser marking devices.

Requirement. Control a CAS mission with FW or RW aircraft at night while utilizing NVDs. Artillery, mortars, and or IR/Laser marking devices shall mark the target. Two terminal controls required for completion.

Mission Performance Standards. Using doctrinal control procedures, control a section of FW or RW aircraft at night utilizing NVDs on a marked target. Provide timely corrections and BDA.

Prerequisite. If FW CAS is used - OPS-201; if RW CAS is used - OPS-203.

External Syllabus Support. One firing unit of artillery or mortars. One section of FW or RW aircraft.

Ordnance. FW: a minimum of 2 Mk 80 series bombs or equivalent. RW: 2 rockets or a PGM and 100 rounds. Minimum of 1 mark (WP, RP) as required.

### 308.3 FULL COMBAT QUALIFIED PHASE

1. Purpose. To develop proficiency and experience as a JTAC. During this stage of the syllabus, the student will coordinate, request, and control indirect fires and control FW and RW aircraft in attacks on targets.

2. Requirements. The student will complete the 300-level syllabus with a minimum of 36 total terminal controls on targets by FW or RW aircraft: 6 during the Combat Primer Phase, 14 during the Combat Capable Phase (TACP Course), and 16 during the Full Combat Qualified Phase. All syllabus events in this phase shall be supervised directly and documented by a JTAC qualified 7502. Upon completion of the 300-level T&R syllabus the unit commander may issue the individual a JTAC Qualification letter.

a. Laser employment. The use of a laser designator to mark targets is highly encouraged during training events. At a minimum, a laser mark shall be employed for the designated OPS codes.

b. PGMs. Demonstration of PGM employment is highly encouraged during training.

c. FAC(A). Demonstration of FAC(A) coordination with the TACP is highly encouraged during training.

d. Live ordnance. The employment of live ordnance enhances Full Combat qualified training and shall be used to the maximum extent possible.

e. MACCS integration. A JTAR shall be used to request CAS at a minimum of 1 mission during this phase of training.

3. After being designated Full Combat qualified a JTAC may authorize attack clearance in accordance with JP 3-09.3 and local range regulations.

#### 4. Mission oriented training events

OPS-300      2.5                      E              F

Goal. Plan for and control a CAS mission with a section of FW aircraft using a marked target.

Requirement. Discuss the control measures, threat scenario, attack profiles, range regulations, and other administrative requirements to conduct a TACP live fire exercise. Prior to live fire execution, coordinate with supporting units and agencies in order to conduct a CAS mission with FW aircraft. Artillery, mortars, NGF, IR pointer, or LASER shall mark the target. Four terminal controls required for completion.

Mission Performance Standards. Using doctrinal control procedures, applicable range regulations, and local SPINS, brief the CAS plan to AO and control a section of FW aircraft on a marked target. Provide timely corrections and BDA.

Prerequisite. Combat Capable phase complete.

External Syllabus Support. One indirect fire unit, IR pointer, or LASER designator. One section of FW aircraft.

Ordnance. A minimum of 4 Mk 80 series bombs or equivalent. A minimum of 2 marks (WP, RP, ILLUM).

OPS-301      2.5                      E              F

Goal. Plan for and control a RW CAS mission on a marked target.

Requirement. Discuss the control measures, threat scenario, attack profiles, range regulations, and other administrative requirements to conduct a TACP live fire exercise. Prior to live fire execution, coordinate with supporting units and agencies in order to conduct a CAS mission with FW aircraft. Artillery, mortars, NGF, IR pointer, or laser shall mark the target. Four terminal controls required for completion.

Mission Performance Standards. Using doctrinal control procedures, applicable range regulations, and local Special Instructions (SPINS), brief the CAS plan to the AO and control a section of RW aircraft on a marked target. Provide timely corrections and BDA.

Prerequisite. Combat Capable phase complete.

External Syllabus Support. One indirect fire unit, IR pointer, or LASER. One section of RW aircraft.

Ordnance. Rockets or a PGM and 200 rounds (5.56, 7.62, 20mm). A minimum of 2 marks.

OPS-302      2.5                      E                      F

Goal. Plan for and control a LASER CAS mission with a section of FW or RW aircraft using a target designated with a LASER.

Requirement. Discuss LASER geometry, Hellfire exclusion zones, LASER range regulations, J-LASER terminology, and LASER safety. Prior to live fire execution, coordinate with supporting units and agencies in order to conduct a LASER CAS mission with FW or RW aircraft. The target shall be designated with a LASER. Four terminal controls required for completion.

Mission Performance Standards. Using doctrinal control procedures, applicable range regulations, and local SPINS, brief the LASER CAS plan to the AO and control a section of FW or RW aircraft on a LASER designated target. Plan for and use proper J-LASER terminology and procedures. Provide timely corrections and BDA.

Prerequisite. OPS-300 and OPS-301.

External Syllabus Support. One section of FW or RW aircraft. LASER designator.

Ordnance. FW: a minimum of 2 GBU bombs, training equivalent (LGTR), or LASER Spot Tracker. RW: a minimum of 2 PGMs or training equivalent captive.

OPS-303      2.5                      E                      F/N

Goal. Plan for and control a CAS mission with a section of FW aircraft using an IR pointer on a marked target at night.

Requirement. Discuss Joint IR terminology and marking procedures to include friendly and enemy. Discuss different IR pointers available in the OPFOR to include pointers available to the Marine aircraft wing. Prior to live fire execution, coordinate with supporting units and agencies in order to conduct a night IR CAS mission with FW aircraft. An IR pointer shall mark the target. Two terminal controls are required for completion.

Mission Performance Standards. Using doctrinal control procedures, applicable range regulations, and local SPINS, brief the IR CAS plan to the AO and control a section of FW aircraft on an IR marked target. Plan for and use proper Joint IR terminology and procedures. Provide timely corrections and BDA.

Prerequisite. OPS-300.

External Syllabus Support. IR pointer, IR strobe. One section of FW aircraft.

Ordnance. A minimum of 2 Mk 80 series bombs or equivalent.

OPS-304      2.5                      E                      F/N

Goal. Plan for and control a CAS mission with a section of RW aircraft using an IR pointer on a marked target at night.

Requirement. Discuss abbreviated control technique. Prior to live fire execution, coordinate with supporting units and agencies in order to conduct a night IR CAS mission with a RW aircraft. An IR pointer shall mark the target. Two terminal controls are required for completion.

Mission Performance Standards. Using doctrinal control procedures, applicable range regulations, and local SPINS, brief the IR CAS plan to the AO and control a section of RW aircraft on an IR marked target. Plan for and use proper Joint IR terminology and procedures. Provide timely corrections and BDA.

Prerequisite. OPS-301.

External Syllabus Support. IR pointer, IR strobe. One section of RW aircraft.

Ordnance. Two rockets or a PGM and 100 rounds.

#### 308.4 ADVANCED TRAINING PHASE

1. Purpose. To develop proficiency in the employment of assault support aircraft and advanced CAS techniques.

2. Requirements. The JTAC shall control the delivery of PGMs, practice allied CAS procedures, employ assault support aircraft, integrate FAC(A) aircraft, and control CAS in an urban environment.

3. Mission oriented training events

OPS-400      0.5                      E                      F

Goal. Control combined attacks by multiple sections in a target area.

Requirement. Discuss Joint Air Attack Teams (JAAT) techniques. Control multiple sections of CAS aircraft in a combined or sectorized attack. Coordinate SEAD as appropriate. Four terminal controls required for completion.

Mission Performance Standards. Using doctrinal control procedures, control multiple sections of CAS aircraft on a marked or unmarked target.

Prerequisite. Combat Capable phase complete.

External Syllabus Support. One firing unit of artillery and or mortars as required. Multiple sections of CAS aircraft.

Ordnance. FW requires a minimum of 2 Mk 80 series bombs or equivalent per section. RW requires 2 rockets or a PGM, and 100 rounds per section. A minimum of 1 mark (WP, RP), and 2 illumination rounds as required.

OPS-401      0.5                      E                      F

Goal. Control delivery of PGMs on a marked target.

Requirement. Discuss different types of PGMs and their employment capabilities and limitations. Discuss PGM to target match. Discuss current target location error with current systems. Control 1 CAS mission with FW or RW aircraft on a target. Recommend 2 simulated attacks prior to PGM delivery. One terminal control is required for completion.

Mission Performance Standards. Using doctrinal control procedures, control a FW or RW aircraft conducting a PGM attack on a marked or unmarked target.

Prerequisites. Combat Capable phase complete.

External Syllabus Support. One firing unit of artillery or mortars, as required. One FW or RW attack aircraft.

Ordnance. One PGM. One mark (WP, RP, illumination), as required.

OPS-402      2.0                      E                      F

Goal. Request and control a simulated CASEVAC mission.

Requirement. Discuss mission precedence, LZ considerations to include marking for day and night pick up. Construct and transmit a CASEVAC request to the DASC or appropriate agency. Coordinate Landing Zone (LZ) preparation and supervise evacuation of the simulated CASEVAC personnel.

Mission Performance Standards. Using doctrinal request and control procedures, successfully coordinate an assault support aircraft on a CASEVAC mission.

Prerequisites. Combat Capable phase complete.

External Syllabus Support. DASC or appropriate agency. One assault support aircraft.

OPS-403      2.0                      E                      F

Goal. Request and control a platoon or company sized troop lift.

Requirement. Discuss Helo Serial Wave Assignment Table, Bump plan, LZ selection, single lift versus waves, and go/no go criteria. Select a suitable LZ. Construct and transmit an Assault Support Request (ASR) to the DASC or appropriate agency. Control the LZ for tactical pickup.

Mission Performance Standards. Using doctrinal request and control procedures, successfully coordinate assault support aircraft on a troop lift mission.

Prerequisite. Combat Capable phase complete.

External Syllabus Support. DASC or appropriate agency.  
Three assault support aircraft.

OPS-404      2.0                      E                      F/N

Goal. Request and control a night platoon or company sized troop lift.

Requirement. Discuss zone marking, A/C marking, and stick identification. Select a suitable LZ. Construct and transmit an ASR to the DASC or appropriate agency. Control the LZ for tactical pickup.

Mission Performance Standards. Using doctrinal request and control procedures, successfully coordinate assault support aircraft on a troop lift mission at night.

Prerequisites. Combat Capable phase complete and OPS-403.

External Syllabus Support. DASC or appropriate agency.  
Three assault support aircraft.

OPS-405      0.5                      E                      F

Goal. Control CAS attacks on a target utilizing allied CAS procedures specified in Allied Tactical Publication 63 (Tactics, Techniques and Procedures for Close Air Support Operations)(ATP-63).

Requirement. Discuss the NATO CAS brief and the difference between it and the 9-line. Control a mission with allied CAS aircraft. Use allied CAS procedures to construct CAS briefings and target attacks. Two terminal controls required for completion.

Mission Performance Standards. Using allied control procedures, control a section of CAS aircraft on a marked or unmarked target.

Prerequisites. Combat Capable phase complete.

External Syllabus Support. One firing unit of artillery or mortars as appropriate. One section of CAS aircraft.

Ordnance. FW: a minimum of 2 Mk 80 series bombs or equivalent. RW: 2 rockets or a PGM and 100 rounds. Two indirect fire marking rounds (WP, RP, or Illum) as appropriate.

OPS-406      0.5                      E                      F

Goal. FAC(A) Integration.

Requirement. Discuss aircraft that are FAC(A) capable and how to employ them. Employ FAC(A) as an extension of the TACP for control of CAS missions.



Mission Performance Standards. Successfully integrate a FAC(A) using doctrinal procedures to attack a target with a section of CAS aircraft.

Prerequisites. Combat Capable phase complete.

External Syllabus Support. One firing unit of artillery or mortars as appropriate. One section of CAS aircraft and one FAC(A) aircraft.

Ordnance. FW: a minimum of 2 Mk 80 series bombs or equivalent. RW: 2 rockets or a PGM and 100 rounds. Two FAC(A) marking rounds or 2 indirect fire marking rounds (WP, RP, or Illum) as appropriate.

OPS-407

0.5                      E                      F

Goal. Control a day Urban CAS mission with a section of CAS aircraft.

Requirement. Discuss the effects of different munitions in an urban environment. Discuss the limitations of TACP gear in the urban environment. Discuss how to divide an urban environment to facilitate targeting. Control a CAS mission with a section of CAS aircraft on a marked or unmarked target in an urban environment. Two terminal controls required for completion.

Mission Performance Standards. Using doctrinal control procedures, control a section of CAS aircraft on a marked or unmarked target in an urban environment. Provide timely corrections and BDA.

Prerequisites. Combat Capable phase complete.

External Syllabus Support. One firing unit of artillery or mortars as appropriate. One section of CAS aircraft.

Ordnance. As required.

OPS-408

0.5                      E                      F/N

Goal. Control a night Urban CAS mission with a section of CAS aircraft.

Requirement. Discuss how artificial illumination affects the use of NVDs. Control a night Urban CAS mission with a section of CAS aircraft on an appropriately marked target. Utilize NVDs as appropriate. Two terminal controls required for completion.

Performance Standards. Using doctrinal control procedures, control a section of CAS aircraft in a night urban CAS environment. Provide timely corrections and BDA.

Prerequisites. Combat Capable phase complete and OPS-407.

External Syllabus Support. One firing unit of artillery or mortars as appropriate. One section of CAS aircraft.

Ordnance. As required.

OPS-409      0.5      E      F

Goal. Control a CAS mission with an AC-130.

Requirement. Discuss the AC-130 "Call for Fire." Control a day or night CAS mission with an AC-130 aircraft on a target utilizing the AC-130 "Call for Fire" as per MCWP 3-23.1 or JCAS 3-09.1. Two terminal controls required for completion.

Performance Standards. Using doctrinal control procedures, control an AC-130 aircraft. Provide timely corrections and BDA.

Prerequisites. Combat Capable phase complete.

External Syllabus Support. Marking devices as required. One AC-130 aircraft.

Ordnance. As required.

### 308.5 INSTRUCTOR QUALIFICATION PHASE

1. Purpose. To develop proficiency in the instruction of student terminal controllers, TACP safety, airspace coordination and deconfliction.

2. Requirements. The qualified JTAC shall be assigned to EWTG and shall have a minimum of 1 year of experience as a JTAC. The JTAC shall complete an approved service instructor school. While under the supervision of a qualified FAC(I) or JTAC(I), the Instructor Under Training (IUT) shall instruct a student terminal controller. Situational awareness of the mission, timing, airspace and follow-on missions during day and night FW and RW missions. One day FW, 1 day RW and 1 night FW or RW mission shall be conducted for a total of 3 missions. One control shall utilize LASER geometry and planning, 1 control shall utilize an IR pointer, and 1 control shall use indirect fire marking rounds.

### 3. Mission Oriented Training Events

IUT-500      3.0      E      F      I

Goal. Maintain SA over TACP operations to include airspace and time deconfliction, adherence to range regulations, student training, ordnance usage, CAS tempo and overall mission safety.

Requirement. Act as TACP FSC for a minimum of 10 CAS missions and a total of 3 continuous hours.

Mission Performance Standards. Ensure all aircraft within the training airspace are safely deconflicted. Ensure appropriate operational tempo is maintained. Demonstrate high SA through out the exercise. Ensure mortar and artillery ordnance is expended at the proper rate. Ensure LASER operations are conducted safely. Ensure all range regulations are adhered to. Correct unsafe trends by CAS aircraft, supporting arms or TACP personnel. Ensure the student training schedule/TACP Air Plan is adhered to.

Prerequisite. Full Combat qualified phase complete.

IUT-501      3.0                      E                      F

Goal. Instruct a student terminal controller controlling FW aircraft on a marked target while conducting SEAD.

Requirement. Instruct for a minimum of 2 day, Type I FW controls. The target shall be marked by artillery, mortars, naval gunfire, or LASER designator. Student must coordinate SEAD with indirect fires.

Performance Standards. Ensure CAS brief is safe and correct. Ensure SEAD is properly coordinated/deconflicted and implemented into the mission. Ensure the student knows the SEAD and CAS timelines. Ensure CAS brief is delivered correctly to the CAS aircraft. Ensure a mark is coordinated and implemented correctly. Monitor and correct student communications with the CAS aircraft. Ensure marking corrections are timely and correct. Ensure the CAS aircraft meet clearance criteria prior to student communication of "Cleared Hot." Monitor mission safety at all times. Conduct a thorough debrief with the student terminal controller.

Prerequisite. Full Combat qualified phase complete.

Ordnance. A section of FW aircraft. A minimum of Mk-80 series bombs or equivalent. Two indirect fire marking rounds (WP, RP, or Illum) and 5 HE suppression rounds.

IUT-502      3.0                      E                      F

Goal. Instruct a student terminal controller controlling RW aircraft on a marked target while conducting SEAD.

Requirement. Instruct for a minimum of 2 day, Type I RW controls. The target shall be marked by artillery, mortars, naval gunfire, or LASER designator. Student must coordinate SEAD with indirect fires.

Performance Standards. Ensure CAS brief is safe and correct. Ensure SEAD is properly coordinated and implemented into the mission. Ensure the student knows the SEAD and CAS timelines. Ensure CAS brief is delivered correctly to the CAS aircraft. Ensure a mark is coordinated and implemented correctly. Monitor and correct student communications with the CAS aircraft. Ensure marking corrections are timely, and correct. Ensure the CAS aircraft meet clearance criteria prior to student communication of "Cleared Hot." Monitor mission safety at all times. Conduct a thorough debrief with the student terminal controller.

Prerequisite. Full Combat qualified phase complete.

Ordnance. RW: 2 rockets or a PGM and 100 rounds. Two indirect fire marking rounds (WP, RP, or Illum) and 5 HE suppression rounds.

IUT-503      3.0 E F

Goal. Instruct a student terminal controller controlling a section of FW or RW aircraft at night on a marked target in a permissive or restrictive threat environment.

Requirement. Instruct for a minimum of 2 night, Type I FW/RW controls utilizing NVDs. The target shall be marked by artillery, mortars or IR Pointer.

Performance Standards. Ensure CAS brief is safe and correct. Ensure CAS brief is delivered correctly to the CAS aircraft. Ensure a mark is coordinated and implemented correctly. Monitor and correct student communications with the CAS aircraft. Ensure marking corrections are timely, and correct. Ensure the CAS aircraft meet clearance criteria prior to student communication of "Cleared Hot." Monitor mission safety at all times. Conduct a thorough debrief with the student terminal controller.

Prerequisite. Full Combat qualified phase complete, IUT-501 and 502.

External Syllabus Support. One firing unit of artillery, mortars, naval gunfire or IR Pointer. One section of FW or RW aircraft.

Ordnance. FW: a minimum of 2 Mk-80 series bombs or equivalent. RW: 2 rockets or a PGM and 100 rounds. Two indirect fire marking rounds (WP, RP, or Illum). IR Pointer may be substituted for indirect fire marking rounds.

4. 9986 T&R Matrix per Appendix A is provided as follows:

**COMBAT PRIMER PHASE**

STAGE	EVENT	HOURS	PROFICENCY INTERVAL	REMARKS
JTAC P	LECT	12.0	N/A	JTAC PRIMER
SIM	100	0.5	N/A	JTAC PRIMER
SIM	101	0.5	N/A	JTAC PRIMER
SIM	102	1.0	N/A	JTAC PRIMER
SIM	103	1.0	N/A	JTAC PRIMER
SIM	104	0.5	N/A	FMF
SIM	105	0.5	N/A	FMF
DASC	106	8.0	N/A	FMF
FAM	107	3.0	N/A	FMF

**COMBAT CAPABLE PHASE**

STAGE	EVENT	HOURS	PROFICENCY INTERVAL	R	REMARKS
OPS	200	0.5	365		EWTG
OPS	201	0.5	365	X	EWTG
OPS	202	0.5	365		EWTG
OPS	203	0.5	365	X	EWTG
OPS	204	0.5	365	X	EWTG
OPS	205	0.5	365	X	EWTG
OPS	206	0.5	365		EWTG, N
OPS	207	0.5	365	X	EWTG, N
OPS	208	0.5	365	X	EWTG, N

**FULL COMBAT QUALIFIED PHASE**

STAGE	EVENT	HOURS	PROFICENCY INTERVAL	REMARKS
OPS	300	2.5	365	FMF
OPS	301	2.5	365	FMF
OPS	302	2.5	365	FMF
OPS	303	2.5	365	FMF, N
OPS	304	2.5	365	FMF, N

**ADVANCED TRAINING PHASE**

STAGE	EVENT	HOURS	PROFICENCY INTERVAL	REMARKS
OPS	400	0.5	365	FMF
OPS	401	0.5	365	FMF
OPS	402	2.0	365	FMF
OPS	403	2.0	365	FMF
OPS	404	2.0	365	FMF, N
OPS	405	0.5	365	FMF
OPS	406	0.5	365	FMF
OPS	407	0.5	365	FMF
OPS	408	0.5	365	FMF, N
OPS	409	0.5	365	FMF

Figure 3-1.--9986 T&R Matrix.

5. 9986 Event Update Chaining per Appendix A is provided as follows:

<u>EVENT</u>	<u>EVENTS UPDATED</u>
100	
101	
102	
103	
104	
105	
106	
107	
200	100
201	104
202	201, 104
203	105
204	203, 202, 201
205	203, 202, 201
206	200
207	203, 202, 201
208	207, 203, 202, 201
300	201
301	203
302	203, 201
303	300, 208, 207, 202, 201
304	301, 208, 207, 203
400	205, 204, 203, 202, 201
400(N)	208, 207, 205, 204, 203, 202, 201
401	203, 202, 201
401(N)	208, 207, 203, 202, 201
402	
403	
404	403
405	
406	203, 202, 201
406(N)	208, 207, 203, 202, 201
407	203, 202, 201
408	407, 208, 207, 203, 202, 201
409	

Figure 3-2.--9986 Event Update Chaining.



Appendix A

TRAINING PROGRAM STRUCTURE

1. This appendix provides the structure and organization for the construction of individual training syllabi. The intent is to maximize combat capability through standardized training syllabi. Each T&R chapter contains a single MOS syllabus. T&R reviews provide the forum to recommend updates to community T&R manuals. Community Subject Matter Expert (SME) input is critical to the T&R review process. Community SMEs shall be familiar with this Appendix and shall have prepared command positions on conference agenda items prior to attending a T&R review. At T&R reviews, command SMEs may provide T&R update recommendations; however, designated command voting representatives determine final T&R update recommendations per Appendix B of this Manual.

2. T&R syllabi shall be constructed using a tiered progression of increasingly challenging training events. T&R events shall be divided into phases as delineated below. Community SMEs shall update/construct T&R syllabi per the following guidelines:

a. The 100-level (Combat Primer phase) contains unit level academics, simulation and practical application training. Upon completion of the 100-level syllabus, individuals shall be enrolled as trainees in a formal EWTG MOS COI.

b. The 200-level (Combat Capable phase) contains basic skill training essential to wartime employment. Upon completion of the 200-level syllabus, individuals shall receive the appropriate MOS certification. Commanding officers may then issue a JTAC qualification letter to a 7502 FAC.

c. The 300-level (Full Combat Qualified phase) contains intermediate skill training. This phase should move an individual from proficiency in basic skills to proficiency in more complex MOS skills. Individuals proficient in this phase of training should be fully qualified and able to execute all required MOS skills. Upon completion of the 300-level syllabus, the commanding officer may then issue a JTAC qualification letter to a 9986 JTAC.

d. The 400-level (Advanced Training phase) contains skill training an individual may accomplish, but not required for individual MOS skill proficiency attainment. Skills contained in this level are normally associated with high risk, low probability of execution, and/or are theater specific. This phase of training allows additional training flexibility.

e. The 500-level (Instructor/Evaluator Training phase) contains instructor and evaluator workup and certification syllabus events.

3. Programs Of Instruction (POI). An individual syllabus provides for Basic, Refresher and Instructor personnel.

a. Basic. The standard instruction prescribed for newly designated personnel. This is defined as the first tour syllabus. Newly designated personnel shall follow the entire POI as prescribed per individual T&R chapters.



b. Refresher. Refresher POIs are prescribed for personnel returning to an operating force billet who have been previously assigned as a 7502 or 9986 in an operational unit. Refresher syllabi normally have fewer required fleet training events (200-400 level) than basic POIs to account for previous experience. Refresher POIs contain appropriate basic POI training events an average experienced individual is required to complete to regain and maintain individual proficiency in T&R skills.

c. Instructor. This POI is to be completed by qualified personnel prior to designation as an instructor.

4. Syllabus Format And Content. Each syllabus shall use the following sample numbering system and content guidance for standardization:

a. Paragraph Order and Title

- X00. MISSION
- X01. PREREQUISITES
- X02. METL
- X03. PROGRAMS OF INSTRUCTION
- X04. ACADEMIC TRAINING
- X05. COURSES OF INSTRUCTION
- X06. TRAINING REFERENCES
- X07. EVENT TRAINING SUMMARY
- X08. EVENT PERFORMANCE REQUIREMENTS

b. Paragraph Contents. The following paragraphs provide guidance for the information and format included in each T&R syllabus. Formatting examples are provided in *italics*.

(1) Paragraph X00. MISSION. This paragraph shall contain the applicable MOS mission statement. Mission statements shall be formatted as follows:

*(a) Mission Statement. The mission of the TACP is to support the MAGTF Commander by advising maneuver element commanders on matters pertaining to aviation integration; directing and controlling Close Air Support (CAS) missions; providing combined fire integration; providing terminal guidance operations, day or night under all weather conditions during expeditionary, joint or combined operations.*

(2) Paragraph X01. PREREQUISITES. This paragraph shall contain the prerequisites required to commence MOS training.

(3) Paragraph X02. MISSION ESSENTIAL TASK LIST (METL). The Mission Essential Task List is a standardized list of tasks an individual must be able to accomplish during combat/contingency operations. Individual MOS T&R METL format shall be constructed per the JCAS AP MOA [Joint Terminal Attack Controller (Ground)]. See individual T&R chapters for MOS METLs.

(4) Paragraph X03. PROGRAMS OF INSTRUCTION. This paragraph contains an outline of the Basic and Refresher POI. The paragraph includes the length of time for each phase/course of instruction required for personnel to complete the POI. POIs shall be formatted per the following example:

303. PROGRAMS OF INSTRUCTION

1. POI for Basic Marine JTAC

<u>WEEKS</u>	<u>COURSE/PHASE</u>	<u>ACTIVITY</u>
1	JTAC Primer Course	EWG
2-XX	Combat Primer Phase	OPFOR
X-XX	TACP Course/Combat Capable Phase	EWG
X-XX	Full Combat Qualified Phase	OPFOR
X-XX	Advanced Training Phase	OPFOR

2. POI for Refresher Marine JTAC

<u>WEEKS</u>	<u>COURSE/PHASE</u>	<u>ACTIVITY</u>
1-XX	TACP Refresher Course	EWG
X-XX	Full Combat Qualified 300 T&R	OPFOR
X-XX	Advanced Training Phase 400 T&R	OPFOR

(5) Paragraph X04. ACADEMIC TRAINING. This paragraph contains the required academic training for the respective MOS.

(6) Paragraph X05. COURSES OF INSTRUCTION. This paragraph contains the formal courses of instruction applicable to the respective MOS. Courses of instruction shall be formatted per the following example:

<u>COURSE</u>	<u>ACTIVITY</u>
JTAC Primer Course	EWG
Tactical Air Control Party Course (TACP)	EWG

(7) Paragraph X06. TRAINING REFERENCES. This paragraph lists the source documents applicable for the respective MOS.

(8) Paragraph X07. EVENT TRAINING SUMMARY. This paragraph provides a summary of the POIs by training phase. Training Summaries shall be formatted per the following example:

307. EVENT TRAINING SUMMARY

1. BASIC (MOS) POI SUMMARY

Combat Primer Phase Training

STAGE I (JTAC PRIMER Course)

	<u>EVENTS</u>	<u>HOURS</u>
Academic Lectures	8	12.0
Practical Application	6	8.0
<u>Simulator Training</u>	<u>4</u>	<u>16.0</u>
Totals	18	36.0

# T&R MANUAL, TACP

## STAGE II (100 LEVEL T&R)

	<u>EVENTS</u>	<u>HOURS</u>
Aircrew CAS Brief/Debrief	1	6.0
Observe aviation C2	1	8.0
Arty/Mortar/NGF "Call for Fire"	1	0.5
Fixed wing CAS/SIMCAS	1	1.0
Rotary wing CAS/SIMCAS	1	1.0
<u>Totals</u>	5	16.5

## Combat Capable Phase Training

	<u>EVENTS</u>	<u>HOURS</u>
Academic Lectures	34	48.0
Practical Application	4	16.0
Simulator Training	6	16.0
Artillery/Mortar "Call for Fire"	2	1.0
FW CAS, Permissive Environment	1	0.5
FW CAS, Restrictive Environment	1	0.5
Rotary wing CAS	1	0.5
CAS w/Continuous SEAD	1	0.5
CAS w/Int or Non-standard SEAD	1	0.5
CAS w/NVD and/or IR/Laser mark	2	1.0
<u>Totals</u>	53	84.5

## Full Combat Qualified Phase Training

	<u>EVENTS</u>	<u>HOURS</u>
Plan and Control Fixed wing	2	2.5
Plan and Control Rotary wing	2	2.5
Plan and Control LCAS	2	2.5
Plan and Control IR Fixed wing	1	2.5
Plan and Control IR Rotary wing	1	2.5
<u>Totals</u>	8	12.5

## Advanced Phase Training

	<u>EVENTS</u>	<u>HOURS</u>
Combined Attacks w/Multi Sections	1	0.5
PGM CAS	1	0.5
Simulated CASEVAC	1	2.0
Day Troop Lift	1	2.0
Night Troop Lift	1	2.0
Allied CAS Procedures	1	0.5
FAC(A) Integration	1	0.5
Day Urban CAS	1	0.5
Night Urban CAS	1	0.5
CAS w/AC-130	1	0.5
<u>Totals</u>	10	9.5

	<u>EVENTS</u>	<u>HOURS</u>
Basic Syllabus Totals	94	159.0

(9) Paragraph X08. EVENT PERFORMANCE REQUIREMENTS. This paragraph should introduce the event performance requirements portion of the entire syllabus and denote general syllabus administrative notes.

(a) Paragraph X08.1-X08.X. These paragraphs shall contain all the event performance requirements for T&R phases. These paragraphs include the instructions necessary to complete the syllabi. Each phase shall list a series of detailed event descriptions expressed in terms of performance requirements.

(b) SMEs shall use the following blocks of training code numbers to designate events:

Combat Primer phase	100-199
Combat Capable phase	200-299
Full Combat Qualified phase	300-399
Advanced Training phase	400-499
Instructor/Evaluator	500-599

(c) A unique numeric 3-digit training code shall be assigned to each syllabus event. The first digit of the event training code should begin with the appropriate phase series number (Combat Primer phase events = 1XX; Combat Capable phase Training events = 2XX; etc.). The following format shall be used to develop the syllabus:

X08. EVENT PERFORMANCE REQUIREMENTS

1. General

a. List policies, notes, and guidelines applicable to all T&R events.

X08.1. (NAME OF PHASE) TRAINING

1. General

a. Denote the level of performance desired by the end of the. State administrative notes applicable to the entire phase.

b. List phase prerequisites.

c. List academic instruction required in this phase.

d. Event Training (X Events, X.X Hours)

(List all phase events per the below format)

1/	2/	3/	4/	5/
<u>OPS-300</u>	<u>2.0</u>	<u>R</u>	<u>E</u>	<u>N</u>

Goal. State the terminal learning objectives.

Requirement. List specific tasks for the event; indicate what the individual must accomplish.

Performance Standards. Describe measurable level of proficiency for that event.

Prerequisite. List any requirements that must be completed prior to commencing event training.

External Syllabus Support. List additional training resource requirements and/or external support required to complete the event, i.e., 2 fixed wing aircraft; specific range requirements, etc.

Ordnance. List the amount and type of ordnance required to complete this event, if applicable.

NOTES: 1/ Event acronym.

2/ Projected event duration. Furnished as a planning tool.

3/ Denotes if event is Refresher POI (Basic is understood).

4/ An "E" indicates an evaluated event.

5/ Conditions: F = Field (If not listed, Field is understood), S = Simulator, F/S = Field preferred/Simulator optional, S/F = Simulator preferred/Field optional, N = Shall be conducted at night.

(d) Event Prerequisites. A prerequisite must be successfully completed prior to commencing training in a syllabus event/phase of training. Event prerequisites shall not be omitted or skipped. Prerequisites are annotated in the prerequisite section of individual events/phases. If a prerequisite is a T&R event, the prerequisite event must have been previously completed (proficiency in the prerequisite event is not required).

## 5. Required Matrices/Tables

a. Syllabus Matrix. SMEs shall update syllabus event information during T&R conferences using the below format as follows:

(MOS) T&R MATRIX

STAGE	EVENT	HOURS	PROFICENCY INTERVAL	R	REMARKS
OPS	200	0.5	365		EWTG
OPS	201	0.5	365	X	EWTG
OPS	202	0.5	365	X	EWTG
OPS	203	0.5	365	X	EWTG
OPS	204	0.5	365	X	EWTG
OPS	205	0.5	365	X	EWTG
OPS	206	0.5	365		EWTG, N
OPS	207	0.5	365	X	EWTG, N
OPS	208	0.5	365	X	EWTG, N

Figure X-1.--(MOS) T&R Matrix.

(1) Proficiency interval reflects the maximum time between syllabus events where the unit can expect the average individual to maintain an acceptable level of proficiency in that event. Proficiency intervals shall be delineated in days. An asterisk (\*) indicates the event has no proficiency interval (one-time training requirement).

b. T&R Chaining Tables. SMEs shall update T&R chaining tables during T&R reviews using the format shown in figure 2-2. Event chaining allows for the completion of more complex and/or advanced events using the same skills to update proficiency status of events. Only events in a sequence entailing demonstration of equivalent skills shall be chained. When a T&R event is logged, the proficiency dates of

other T&R events (usually lower in number) may be updated. The T&R code that is logged is known as the "chaining code," and the updated codes are "chained codes." T&R chaining tables shall be formatted as follows:

(MOS) EVENT UPDATE CHAINING

<u>EVENT</u>	<u>EVENTS UPDATED</u>
100	
101	
102	
103	
104	
105	
106	
107	
200	100
201	104
202	201, 104
203	105
204	203, 202, 201
205	203, 202, 201
206	200
207	203, 202, 201
208	207, 203, 202, 201
300	201
301	203
302	203, 201
303	300, 208, 207, 202, 201
304	301, 208, 207, 203
400	205, 204, 203, 202, 201
400(N)	208, 207, 205, 204, 203, 202, 201
401	203, 202, 201
401(N)	208, 207, 203, 202, 201
402	
403	
404	403
405	
406	203, 202, 201
406(N)	208, 207, 203, 202, 201
407	203, 202, 201
408	407, 208, 207, 203, 202, 201
409	

Figure X-2.--(MOS) Event Update Chaining.

c. Syllabus Event Conversion Matrix. This matrix is used to convert T&R syllabus event proficiency status of the previous T&R syllabus into event proficiency status of the current T&R for individuals. SMEs shall develop syllabus event conversion matrix(ces) for all applicable MOSs during T&R reviews as follows:

*(MOS) EVENT CONVERSION MATRIX*

<b>NEW TRNG CODE</b>	<b>OLD TRNG CODE</b>
200	202
201	201
202	304
203	204
204	N/A
205	205
301	300, 301
302	302
303	303
304	306
400	307
401	401
402	N/A

*Figure X-3.--(MOS) Event Conversion Matrix.*

d. T&R Syllabus Event Evaluation Forms. Syllabus sponsors shall develop standardized evaluation forms for events contained in their T&R syllabus. These are the only authorized evaluation forms for use. T&R syllabus evaluation forms shall be maintained by the syllabus sponsor. The syllabus sponsor shall ensure electronic copies are made available to OPFOR units.

APPENDIX B

T&R CHANGES

1. Syllabus Sponsor. The syllabus sponsor is responsible to coordinate T&R changes and maintain close liaison with community tactical units and MAWTS-1. EWTGPAC is the syllabus sponsor for 7502 FAC. EWTGLANT is the syllabus sponsor for 9986 JTAC. MAWTS-1 is the syllabus sponsor for 75XX Air Officer.

2. T&R Changes

a. T&R Reviews. A T&R review is a forum to routinely review and comprehensively revise the T&R manual. T&R reviews will normally be conducted via conference and produce a new version (e.g. MCO PXXXX.XX"B"). T&R reviews may be held via correspondence with CG TECOM approval. T&R reviews will normally convene on a triennial schedule; however, T&R reviews may be convened as appropriate or when higher headquarters direct.

b. T&R changes. A T&R change is a change to an existing T&R between T&R reviews. T&R changes are normally completed via correspondence and produce formal changes to the existing T&R manual (e.g. MCO PXXXX.XX, "Ch 1").

3. T&R Review Pre-Conference Procedures

a. Action

(1) Syllabus Sponsor. Syllabus sponsors shall coordinate with CG TECOM to establish a T&R conference date and prepare the initial convening message to the appropriate commands employing the MOSs contained in this Manual with an information copy to CMC (DC AVN, DC PP&O) and MAWTS-1. CG TECOM shall release this message 90 days before the proposed conference date. This message shall include the conference convening location and date, announce the purpose, and request interested units to submit agenda items. CG TECOM shall coordinate with the syllabus sponsors to consolidate agenda items and release a conference agenda message to COMMARFORLANT, COMMARFORPAC, COMMARFORRES, MEFs, MARDIVs, MAWTS-1, and all commands employing the MOSs contained in this Manual.

(2) Total Force. Authorized agencies shall nominate voting representatives to CG TECOM via message NLT 45 days prior to the conference. Units shall submit agenda items to CG TECOM and the syllabus sponsors (Item, Discussion, Recommendation format) via message NLT 45 days prior to the conference.

(3) CG TECOM. CG TECOM shall provide guidance to syllabus sponsors. CG TECOM shall ensure agenda items are distributed to voting members NLT 30 days prior to the subject conference.

b. Conference Funding. Organizations shall program funding requirements for conference attendance per MCO P7100.8 (Field Budget Guidance Manual).



#### 4. T&R Review Conference Procedures

a. All conference attendees shall be familiar with agenda items prior to the conference. Voting members shall staff agenda items and will have established command positions prior to attending a conference. As front-end agenda staffing facilitates the T&R update process, CG TECOM discourages accepting additional agenda items during T&R conferences.

b. At the conference, attendees shall review the applicable T&R syllabi and provide change recommendations. SMEs shall format their respective T&R manual syllabi per the examples listed in Appendix A. At a minimum, members of the conference shall complete the following tasks:

(1) Evaluate the syllabi for effectiveness.

(2) Propose changes to the syllabi in format and structure per Chapter 1 and Appendix A. Review/validate/modify the following:

(a) Mission statement/METL.

(b) Programs of Instruction.

(c) Syllabus/Phase information.

(d) Syllabus events.

(e) Training resource requirements.

(f) Required T&R matrices/tables.

(g) Syllabus event conversion matrix.

(h) T&R syllabus evaluation forms.

(3) Coordinate syllabus requirements with other communities as required.

c. Conference attendees may recommend a specific position, but it is CG TECOM, COMMARFORLANT, COMMARFORPAC, and COMMARFORRES who vote. This procedure ensures fair voting practices.

#### d. Action

(1) Syllabus Sponsor. A syllabus sponsor shall host the conference and ensure each attendee has access to a draft version of the T&R at the completion of the conference.

(2) CG TECOM. CG TECOM shall provide conference guidance to syllabus sponsors and facilitate T&R review procedures. CG TECOM shall also ensure individual T&R chapters are developed/updated per the policies contained in this Manual.

(3) CG TECOM, COMMARFORLANT, COMMARFORPAC, and COMARFORRES shall designate one voting member with experience in day-to-day supervision of TACP training programs to each conference. The conference attendees should include representatives from each MEF,

MARDIV, MAWTS-1, and any other appropriate staff officers. CG TECOM invites HQMC to send representatives.

5. Post-Conference T&R Review Procedures

a. Action

(1) Syllabus Sponsor. The syllabus sponsors shall provide CG TECOM a smooth, electronic version of the draft T&R chapters within 10 working days of conference completion. The syllabus sponsors shall coordinate with CG TECOM to prepare and release a conference report message to the MARFORs within 10 working days of conference completion. Conference report messages shall delineate significant change recommendations and request MARFORs concur or non-concur with the draft T&R manual.

(2) MARFORs. MARFORLANT, MARFORPAC, and MARFORRES shall consolidate comments from subordinate units and concur or non-concur with justification to CG TECOM via message within 45 days of the conference completion date.

(a) MARFOR command T&R review conference representatives shall brief their respective commands on post conference results.

(b) MARFORs should coordinate to resolve post conference contentious issues.

(c) Failure to respond to post conference deadlines indicates concurrence with T&R syllabus.

(3) CMC (DC PP&O, DC AVN). CMC shall review the proposed syllabus and concur or non-concur with justification to CG TECOM via message NLT 90 days after conference completion.

(4) CG TECOM

(a) CG TECOM shall coordinate with the syllabus sponsor to prepare and release, within 10 working days, a conference report message. CG TECOM shall ensure electronic versions of draft syllabi are made available to requesting agencies.

(b) CG TECOM shall attach MARFOR comments and forward the draft document to CMC (PP&O, DC AVN), NLT 60 days after conference completion. Unresolved issues shall be forwarded to CMC (DC PP&O, DC AVN) for decision.

(c) Upon MARFOR and CMC concurrence, CG TECOM shall release a message approving the T&R syllabus for interim use. CG TECOM shall attach CMC and MARFOR comments and staff the document for CG TECOM signature as a Marine Corps Order (MCO). When the MCO is approved by CG TECOM, CG TECOM shall release a message announcing the MCO has been approved (the MCO replaces the interim T&R syllabus). CG TECOM shall coordinate with CMC to coordinate publication and distribution as appropriate.

6. T&R Changes Via Correspondence

a. Organizations recommending T&R changes shall submit proposed changes in message format via the respective MEF/DIV to CG TECOM and the syllabus sponsors. Correspondence must include rationale for the change.

b. CG TECOM and the syllabus sponsors shall review and forward the proposed change recommendations to all MEFs/DIVs within 5 working days of receipt of the correspondence.

c. MEFs/DIVs shall submit their comments and recommendations to CG TECOM and syllabus sponsors within 30 days of the date of the request for comments. All comments and recommendations shall be submitted via message.

d. CG TECOM and the syllabus sponsor shall consolidate comments and produce a smooth draft of proposed T&R changes (include update of the T&R event conversion matrix if applicable). CG TECOM shall release a T&R change recommendation message to the MARFORs and CMC (DC PP&O, DC AVN) within 45 days of the request for comments.

e. CMC (DC PP&O, DC AVN) and the MARFORs shall review the proposed T&R change and concur or non-concur with justification to CG TECOM within 30 days of the syllabus change recommendation message release. Unresolved issues shall be forwarded to CMC (DC PP&O, DC AVN) for decision. Upon concurrence, CG TECOM shall release a message approving the T&R syllabus change for interim use.

f. CG TECOM shall attach CMC and MARFOR comments and staff the change for CG TECOM signature as a MCO change. When the MCO change is approved by CG TECOM, CG TECOM shall release a message announcing the MCO has been changed (the MCO change replaces the interim T&R syllabus change). CG TECOM shall coordinate with CMC to coordinate publication and distribution as appropriate.

7. Applicability. When a T&R manual update or change is approved for use, the approved version of the manual becomes the training standard for all applicable units. Units shall transition to the approved T&R syllabus as soon as practical.

APPENDIX C

INDIVIDUAL PERFORMANCE RECORDS

1. JTAC Individual Performance Record (IPR). To properly document accomplishment of JTAC certification and qualification (currency) standards, an IPR shall be initiated by the JTAC schoolhouse and maintained by the JTAC's operational unit. This IPR shall accompany the individual to each duty assignment to provide unit commanders and commanding officers that individual's certification and qualification status to conduct joint terminal attack control operations, and to maintain appropriate records (currency) within the IPR. The IPR shall contain a 6-part documentation system. This is mandatory for all JTACs.

Part I - TABLE OF CONTENTS

Part II - COMMANDERS DESIGNATION LETTERS. This section contains a copy of the JTAC's current Qualification and Designation letter(s) and a copy of any previous designation letters, if applicable.

Part III - CAS LOG. This section contains a record of all controls in legible format and must be in compliance with Appendix (A) of the JCAS AP MOA [Joint Terminal Attack Controller (Ground)]. This section should contain records of all controls performed since initial certification. See figure C-1.

Part IV - DOCUMENTATION OF EVALUATIONS. This section contains documentation of all evaluations conducted since initial certification.

PART V - DOCUMENTATION OF TRAINING. All Continuation Training and Refresher Training should be documented in Part V to include academics and testing.

Part VI - JTAC FORMAL SCHOOL DIPLOMAS. This section contains any certificates received from attending a formal course of instruction pertaining to CAS or TAC.

2. MEF/DIV Air Officers (AOs) shall maintain a JTAC qualification status record/log of all personnel who have previously received the JTAC qualification. MEF/DIV AOs shall utilize the format shown in figure C-2.

## T&amp;R MANUAL, TACP

[illegible]

Figure C-1.--CAS Log.

JTAC Qualification Status for X MEF/DIV			
Individual	Unit	JTAC Certification date	JTAC Qualification Status
I. M. Jarhead	2/5	19 Apr 2004	Certified and Qualified
			Certified but not Qualified
			Certified and still in training (not qualified)

Figure C-2.--JTAC Qualification Status Log.

APPENDIX D

ACRONYMS AND DEFINITIONS

ACRONYMS

AAA . . . Antiaircraft Artillery  
AADC . . . Area Air Defense Commander  
AAW . . . Antiair Warfare  
ACA . . . Airspace Control Authority  
ACE . . . Aviation Combat Element  
ACI . . . Air Combat Intelligence  
ACO . . . Airspace Control Order  
ACP . . . Airspace Control Plan  
AEW . . . Airborne Early Warning  
AGM . . . Air-To-Ground Missile  
AI . . . Air Interdiction  
AO . . . Area Of Operations  
AOC . . . Air Operations Center (Air Force)  
AOR . . . Area Of Responsibility  
AR . . . Armed Reconnaissance  
ARA . . . Armed Reconnaissance Area  
ASC(A) . . . Assault Support Coordinator (Airborne)  
ASLT . . . Air Support Liaison Team  
ASOC . . . Air Support Operations Center  
ATARS . . . Advanced Tactical Airborne Reconnaissance System  
ATO . . . Air Tasking Order  
AWACS . . . Airborne Warning and Control System

BDA . . . Bomb Or Battle Damage Assessment

C2 . . . Command And Control  
C3 . . . Command, Control, And Communications  
C4I . . . Command, Control, Communications, Computers, And Intelligence  
CA . . . Combat Assessment  
CAP . . . Combat Air Patrol  
CAS . . . Close Air Support  
CBU . . . Cluster Bomb Unit  
CCIR . . . Commander's Critical Information Requirements  
CEP . . . Circular Error Probable  
COA . . . Course Of Action  
CSSE . . . Combat Service Support Element

DAS . . . Deep Air Support  
DASC . . . Direct Air Support Center  
DASC(A) . . . Direct Air Support Center (Airborne)

EW . . . Electronic Warfare

FAC . . . Forward Air Controller  
FAC(A) . . . Forward Air Controller (Airborne)  
FARP . . . Forward Arming And Refueling Point  
FEBA . . . Forward Edge Of The Battle Area  
FFCC . . . Force Fires Coordination Center  
FLIR . . . Forward Looking Infrared  
FOB . . . Forward Operating Base  
FRAGO . . . Fragmentary Order

T&R MANUAL, TACP

FSCC . . . Fire Support Coordination Center  
FSCL . . . Fire Support Coordination Line

GCE . . . Ground Combat Element  
GCI . . . Ground Controlled Intercept  
GGW . . . GPS Guided Weapon  
GPS . . . Global Positioning System

HIDACZ . . . High-Density Airspace Control Zone  
HPT . . . High-Payoff Target  
HPTL . . . High-Payoff Target List  
HST . . . Helicopter Support Team  
HVT . . . High-Value Target

IFF . . . Identification, Friend Or Foe  
INS . . . Inertial Navigation System  
IOC . . . Initial Operational Capability  
IPB . . . Intelligence Preparation Of The Battlespace  
IR . . . Infrared Radiation

JAOC . . . Joint Air Operations Center  
JDAM . . . Joint Direct Attack Munition  
JFACC . . . Joint Force Air Component Commander  
JFC . . . Joint Force Commander  
JIPTL . . . Joint Integrated Prioritized Target List  
JMEM . . . Joint Munitions Effectiveness Manual  
JSOW . . . Joint Standoff Weapon  
JTAC . . . Joint Terminal Attack Controller  
JTAR . . . Joint Tactical Air Strike Request  
JTCB . . . Joint Targeting Coordination Board  
JTL . . . Joint Target List

LAAD . . . Low Altitude Air Defense  
LANTIRN . . . Low-Altitude Navigation And Targeting Infrared For Night  
LGB . . . Laser-Guided Bomb  
LGM . . . Laser-Guided Missile  
LGW . . . Laser-Guided Weapon  
LOC . . . Lines Of Communications  
LSD . . . Laser Spot Designator  
LST . . . Laser Spot Tracker

MACCS . . . Marine Air Command And Control System  
MACG . . . Marine Air Control Group  
MAG . . . Marine Aircraft Group  
MAGTF . . . Marine Air-Ground Task Force  
MARFOR . . . Marine Corps Forces  
MARLO . . . Marine Liaison Officer  
MCDP . . . Marine Corps Doctrinal Publication  
MCPD . . . Marine Corps Planning Process  
MCRP . . . Marine Corps Reference Publication  
MCWP . . . Marine Corps Warfighting Publication  
MEF . . . Marine Expeditionary Force  
METT-T . . . Mission, Enemy, Terrain And Weather, Troops And Support  
Available-Time Available  
MISREP . . . Mission Report  
MOOTW . . . Military Operations Other Than War  
MOS . . . Military Occupational Specialty

# T&R MANUAL, TACP

MSC . . . Major Subordinate Command  
  
 NATO . . . North Atlantic Treaty Organization  
 NFA . . . No-Fire Area  
 NVD . . . Night Vision Device  
 NVG . . . Night Vision Goggle  
 NWP . . . Naval Warfare Publication  
  
 OAS . . . Offensive Air Support  
 OPLAN . . . Operation Plan  
 OPORD . . . Operation Order  
 OPSEC . . . Operations Security  
 OPT . . . Operational Planning Team  
  
 PGM . . . Precision-Guided Missile/Munition  
 PGW . . . Precision-Guided Weapon  
 PID . . . Positive Identification  
 PIR . . . Priority Intelligence Requirement  
  
 RAOC . . . Rear Area Operations Center; Regional Air Operations Center  
 RFI . . . Request For Information; Request For Intelligence  
 ROE . . . Rules Of Engagement  
  
 SAAWC . . . Sector Antiair Warfare Coordinator (USMC)  
 SAM . . . Surface-To-Air Missile  
 SCAR . . . Strike Coordination And Reconnaissance  
 SEAD . . . Suppression Of Enemy Air Defenses  
 SERE . . . Survival, Evasion, Resistance, And Escape  
 SLAM . . . Standoff Land Attack Missile  
 SPINS . . . Special Instructions  
 STOM . . . Ship-To-Objective Maneuver  
  
 TAC(A) . . . Tactical Air Coordinator (Airborne)  
 TACAIR . . . Tactical Air  
 TACC . . . Tactical Air Command Center (USMC); Tactical Air Control Center (USN/USAF)  
 TACP . . . Tactical Air Control Party  
 TADC . . . Tactical Air Direction Center  
 TAGS . . . Theater Air Ground System  
 TALD . . . Tactical Air-Launched Decoy  
 TAOC . . . Tactical Air Operations Center  
 TARPS . . . Tactical Airborne Reconnaissance Pod System  
 TBMCS . . . Theater Battle Management Core System  
 TGO . . . Terminal Guidance Operations  
 TLDHS . . . Target Location, Designation, And Hand-Off System  
 TLE . . . Target Location Error  
 TOT . . . Time On Target  
 TRAP . . . Tactical Recovery Of Aircraft And Personnel  
 TSS . . . Target Selection Standards  
 TVA . . . Target Value Analysis  
  
 UAV . . . Unmanned Aerial Vehicle  
 UGS . . . Universal Ground Spotter  
 UHF . . . Ultra High Frequency  
  
 VHF . . . Very High Frequency  
 WGS-84 . . . World Geodetic System 1984



DEFINITIONS

**Air Interdiction** – Air operations conducted to destroy, neutralize, or delay the enemy's military potential before it can be brought to bear effectively against friendly forces at such distance from friendly forces that detailed integration of each air mission with the fire and movement of friendly forces is not required. (JP 1-02)

**Air Liaison Officer** – The senior tactical air control party member attached to a ground unit who functions as the primary advisor to the ground commander on air power. An Air Liaison Officer is usually an aeronautically rated officer. Also called ALO. (JP3-09.3.)

**Air Operations Center** – The principal air operations installation from which aircraft and air warning functions of combat air operations are directed, controlled, and executed. It is the senior agency of the Air Force Component Commander from which command and control of air operations are coordinated with other components and Services. Also called AOC. (JP 1-02)

**Airspace Control Authority** – The commander designated to assume overall responsibility for the operation of the airspace control system in the airspace control area. Also called ACA. (JP 1-02)

**Airspace Control Order** – An order implementing the airspace control plan that provides the details of the approved requests for airspace control measures. It is published either as part of the air tasking order or as a separate document. Also called ACO. (JP 1-02)

**Airspace Control Plan** – The document approved by the joint force commander that provides specific planning guidance and procedures for the airspace control system for the joint force area of responsibility/joint operations area. Also called ACP. (JP 1-02)

**Airspace Coordination Area** – A three-dimensional block of airspace in a target area, established by the appropriate ground commander, in which friendly aircraft are reasonably safe from friendly surface fires. The airspace coordination area may be formal or informal. Also called ACA. (JP 1-02)

**Air Superiority** – That degree of dominance in the air battle of one force over another which permits the conduct of operations by the former and its related land, sea and air forces at a given time and place without prohibitive interference by the opposing force. (JP 1-02)

**Anti-Air Warfare** – A US Navy/US Marine Corps term used to indicate that action required to destroy or reduce to an acceptable level the enemy air and missile threat. It includes such measures as the use of interceptors, bombers, antiaircraft guns, surface-to-air and air-to-air missiles, electronic attack, and destruction of the air or missile threat both before and after it is launched. Other measures which are taken to minimize the effects of hostile air action are cover, concealment, dispersion, deception (including electronic), and mobility. Also called AAW. (JP 1-02) AAW is one of the 6 functions of Marine aviation.

**Anti-Radiation Missile** — A missile that homes passively on a radiation source. (JP 1-02)

**Armed Reconnaissance** — A mission with the primary purpose of locating and attacking targets of opportunity, i.e., enemy materiel, personnel, and facilities, in assigned general areas or along assigned ground communications routes, and not for the purpose of attacking specific briefed targets. Also called AR. (JP 1-02)

**Attack Heading** — 1. The interceptor heading during the attack phase that will achieve the desired track-crossing angle. 2. The assigned magnetic compass heading to be flown by aircraft during the delivery phase of an air strike. (JP 1-02)

**Aviation Combat Element** — The core element of a Marine Air-Ground Task Force (MAGTF) that is task-organized to conduct aviation operations. The aviation combat element provides all or a portion of the 6 functions of Marine aviation necessary to accomplish the MAGTF's mission. These functions are anti-air warfare, offensive air support, assault support, electronic warfare, air reconnaissance, and control of aircraft and missiles. The aviation combat element is usually composed of an aviation unit headquarters and various other aviation units or their detachments. It can vary in size from a small aviation detachment of specifically required aircraft to one or more Marine aircraft wings. The aviation combat element may contain other Service or foreign military forces assigned or attached to the MAGTF. Also called ACE. (MCRP 5-12C)

**Battle Damage Assessment** — The timely and accurate estimate of damage resulting from the application of military force, either lethal or non-lethal, against a predetermined objective. Battle damage assessment can be applied to the employment of all types of weapon systems (air, ground, naval, and special forces weapon systems) throughout the range of military operations. Battle damage assessment is primarily an intelligence responsibility with required inputs and coordination from the operators. Battle damage assessment is composed of physical damage assessment, functional damage assessment, and target system assessment. Also called BDA. (JP 1-02)

**Certification** — The evaluation process applied to an individual during a syllabus event(s) by a designated instructor or other authorized personnel for the purpose of ascertaining proficiency as a prerequisite to a qualification or designation. Individuals who satisfactorily complete the appropriate service academic and practical training requirements of a core training curriculum and complete a comprehensive evaluation may be granted a certification. (TACP T&R)

**Close Air Support** — Air action by fixed- and rotary wing aircraft against hostile targets which are in close proximity to friendly forces and which require detailed integration of each air mission with the fire and movement of those forces. Also called CAS. (JP 1-02)

**Combat Service Support Element** — The core element of a MAGTF Marine that is task-organized to provide the combat service support necessary to accomplish the MAGTF mission. The combat service support element varies in size from a small detachment to one or more force service support groups. It provides supply, maintenance, transportation,

general engineering, health services, and a variety of other services to the MAGTF. It may also contain other Service or foreign military forces assigned or attached to the MAGTF. Also called CSSE. (MCRP 5-12C)

**Combined Arms** — The full integration of combat arms in such a way that to counteract one, the enemy must become more vulnerable to another. (MCRP 5-12C)

**Command And Control** — The exercise of authority and direction by a properly designated commander over assigned and attached forces in the accomplishment of the mission. Command and control functions are performed through an arrangement of personnel, equipment, communications, facilities, and procedures employed by a commander in planning, directing, coordinating, and controlling forces and operations in the accomplishment of the mission. Also called C2. (JP 1-02)

**Command Element** — The core element of a MAGTF that is the headquarters. The command element is composed of the commander, general or executive and special staff sections, headquarters section, and requisite communications support, intelligence and reconnaissance forces, necessary to accomplish the MAGTF's mission. The command element provides command and control, intelligence, and other support essential for effective planning and execution of operations by the other elements of the MAGTF. The command element varies in size and composition and may contain other Service or foreign military forces assigned or attached to the MAGTF. Also called CE. (MCRP 5-12C)

**Concept Of Operations** — A verbal or graphic statement, in broad outline, of a commander's assumptions or intent in regard to an operation or series of operations. The concept of operations frequently is embodied in campaign plans and operation plans; in the latter case, particularly when the plans cover a series of connected operations to be carried out simultaneously or in succession. The concept is designed to give an overall picture of the operation. It is included primarily for additional clarity of purpose. (JP 1-02)

**Control** - A control consists of at least one aircraft attacking a surface target. The control begins with a CAS briefing (the 9-line is the JP 3-09.3 standard) from a JTAC and ends with either an actual/simulated weapons release or an abort on a final attack run. No more than 2 controls can be counted per CAS briefing per target. (TACP T&R)

**Currency** - Currency is a control measure used to determine qualification status. Currency is determined in terms of minimum training requirements that must be successfully completed within a defined time interval. An individual who successfully completes stated training requirements within the defined time interval is considered "current."

**Deep Air Support** - Air action against enemy targets at such a distance from friendly forces that detailed integration of each mission with fire and movement of friendly forces is not required. Deep air support missions are flown on either side of the fire support coordination line; the lack of a requirement for close coordination with the fire

and movement of friendly forces is the qualifying factor. Deep air support missions include AI, AR, and Strike Coordination And Reconnaissance (SCAR). Also called DAS. (MCRP 5-12C)

**Designation** - A status assigned to an individual based on leadership ability. A designation is a command specific, one-time occurrence and remains in effect until removed for cause or transfer from the unit. Unit commanding officers nominate individuals to receive designations. (TACP T&R)

**Direct Air Support Center** - The principal air control agency of the Marine air command and control system responsible for the direction and control of air operations directly supporting the ground combat element. It processes and coordinates requests for immediate air support and coordinates air missions requiring integration with ground forces and other supporting arms. It normally collocates with the senior fire support coordination center within the ground combat element and is subordinate to the tactical air command center. Also called DASC. (JP 1-02)

**Direct Support** - A mission requiring a force to support another specific force and authorizing it to answer directly to the supported force's request for assistance. See also general support. (JP 1-02)

**Electronic Warfare** - Any military action involving the use of electromagnetic and directed energy to control the electromagnetic spectrum or to attack the enemy. Also called EW. The 3 major subdivisions within electronic warfare are: electronic attack, electronic protection, and electronic warfare support.

**a. Electronic Attack.** That division of electronic warfare involving the use of electromagnetic energy, directed energy, or anti-radiation weapons to attack personnel, facilities, or equipment with the intent of degrading, neutralizing, or destroying enemy combat capability and is considered a form of fires. Also called EA. EA includes: **1)** actions taken to prevent or reduce an enemy's effective use of the electromagnetic spectrum, such as jamming and electromagnetic deception, and **2)** employment of weapons that use either electromagnetic or directed energy as their primary destructive mechanism (lasers, radio frequency weapons, particle beams).

**b. Electronic Protection.** That division of electronic warfare involving passive and active means taken to protect personnel, facilities, and equipment from any effects of friendly or enemy employment of electronic warfare that degrade, neutralize, or destroy friendly combat capability. Also called EP.

**c. Electronic Warfare Support.** That division of electronic warfare involving actions tasked by, or under direct control of, an operational commander to search for, intercept, identify, and locate or localize sources of intentional and unintentional radiated electromagnetic energy for the purpose of immediate threat recognition, targeting, planning and conduct of future operations. Thus, electronic warfare support provides information required for decisions involving electronic warfare operations and other tactical actions such as threat avoidance, targeting, and homing. Also called ES. Electronic warfare support data can be used to produce signals intelligence, provide

targeting for electronic or destructive attack, and produce measurement and signature intelligence. (JP 1-02)

**Fire Support Coordination Center** — A single location in which are centralized communications facilities and personnel incident to the coordination of all forms of fire support. See also supporting arms coordination center. Also called FSICC. (JP 1-02)

**Fire Support Coordination Line** — A fire support coordinating measure that is established and adjusted by appropriate land or amphibious force commanders within their boundaries in consultation with superior, subordinate, supporting, and affected commanders. Fire Support Coordination Lines (FSCLs) facilitate the expeditious attack of surface targets of opportunity beyond the coordinating measure. An FSCL does not divide an area of operations by defining a boundary between close and deep operations or a zone for close air support. The FSCL applies to all fires of air, land, and sea-based weapon systems using any type of ammunition. Forces attacking targets beyond an FSCL must inform all affected commanders in sufficient time to allow necessary reaction to avoid fratricide. Supporting elements attacking targets beyond the FSCL must ensure that the attack will not produce adverse effects on, or to the rear of, the line. Short of an FSCL all air-to-ground and surface-to surface attack operations are controlled by the appropriate land or amphibious force commander. The FSCL should follow well defined terrain features. Coordination of attacks beyond the FSCL is especially critical to commanders of air, land, and special operations forces. In exceptional circumstances, the inability to conduct this coordination will not preclude the attack of targets beyond the FSCL. However, failure to do so may increase the risk of fratricide and could waste limited resources. Also called FSCL. (JP 1-02)

**Forward Air Controller** — An officer (aviator) member of the tactical air control party who, from a forward ground or airborne position, controls aircraft in close air support of ground troops. Also called FAC. (JP 1-02)

**Forward Air Controller (Airborne)** — A specifically trained and qualified aviation officer who exercises control from the air of aircraft engaged in close air support of ground troops. The forward air controller (airborne) is normally an airborne extension of the tactical air control party. Also called FAC(A). (JP 1-02)

**Forward Arming And Refueling Point** — A temporary facility, organized, equipped, and deployed by an aviation commander, and normally located in the main battle area closer to the area of operation than the aviation unit's combat service area, to provide fuel and ammunition necessary for the employment of aviation maneuver units in combat. The forward arming and refueling point permits combat aircraft to rapidly refuel and rearm simultaneously. Also called FARP. (JP 1-02)

**Forward Looking Infrared** — An airborne, electro-optical thermal imaging device that detects far-infrared energy, converts the energy into an electronic signal, and provides a visible image for day or night viewing. Also called FLIR. (JP 1-02) See night vision device.

**Forward Operating Base** — An airfield used to support tactical operations without establishing full support facilities. The base may

be used for an extended time period. Support by a main operating base will be required to provide backup support for a forward operating base. Also called FOB. (JP 1-02)

**General Support** — That support which is given to the supported force as a whole and not to any particular subdivision thereof. (JP 1-02) See also direct support.

**Ground Combat Element** — The core element of a MAGTF that is task organized to conduct ground operations. It is usually constructed around an infantry organization but can vary in size from a small ground unit of any type, to one or more Marine divisions that can be independently maneuvered under the direction of the MAGTF commander. It includes appropriate ground combat and combat support forces and may contain other Service or foreign military forces assigned or attached to the MAGTF. The ground combat element itself is not a formal command. Also called GCE. (MCRP 5-12C)

**High-Density Airspace Control Zone** — Airspace designated in an airspace control plan or airspace control order, in which there is a concentrated employment of numerous and varied weapons and airspace users. A high-density airspace control zone has defined dimensions which usually coincide with geographical features or navigational aids. Access to a high-density airspace control zone is normally controlled by the maneuver commander. The maneuver commander can also direct a more restrictive weapons status within the high-density airspace control zone. Also called HIDACZ. (JP 1-02)

**Immediate Air Support** — Air support to meet specific requests which arise during the course of a battle and which by their nature cannot be planned in advance. (JP 1-02)

**Intelligence Preparation Of The Battlespace** — An analytical methodology employed to reduce uncertainties concerning the enemy, environment, and terrain for all types of operations. Intelligence preparation of the battlespace builds an extensive database for each potential area in which a unit may be required to operate. The database is then analyzed in detail to determine the impact of the enemy, environment, and terrain on operations and presents it in graphic form. Intelligence preparation of the battlespace is a continuing process. Also called IPB. (JP 1-02)

**Joint Air Operations Center** — A jointly staffed facility established for planning, directing, and executing joint air operations in support of the joint force commander's operation or campaign objectives. Also called JAOC. (JP 1-02)

**Joint Force Air Component Commander** — The joint force air component commander derives authority from the joint force commander who has the authority to exercise operational control, assign missions, direct coordination among subordinate commanders, redirect and organize forces to ensure unity of effort in the accomplishment of the overall mission. The joint force commander will normally designate a joint force air component commander. The joint force air component commander's responsibilities will be assigned by the joint force commander (normally these would include, but not be limited to, planning, coordination, allocation, and tasking based on the joint force

commander's apportionment decision). Using the joint force commander's guidance and authority, and in coordination with other Service component commanders and other assigned or supporting commanders, the joint force air component commander will recommend to the joint force commander apportionment of air sorties to various missions or geographic areas. Also called JFACC. (JP 1-02)

**Joint Force Commander** — A general term applied to a combatant commander, sub-unified commander, or joint task force commander authorized to exercise combatant command (command authority) or operational control over a joint force. Also called JFC. (JP 1-02).

**Joint Terminal Attack Controller** — A qualified (certified) Service member who, from a forward position, directs the action of combat aircraft engaged in close air support and other offensive air operations. A qualified and current joint terminal attack controller will be recognized across DoD as capable and authorized to perform terminal attack control. Also called JTAC. (JP3-09.3.)

**List Of Targets** — A tabulation of confirmed or suspect targets maintained by any echelon for informational and fire support planning purposes. (JP 1-02)

**Maneuver Warfare** — A warfighting philosophy that seeks to shatter the enemy's cohesion through a variety of rapid, focused, and unexpected actions which create a turbulent and rapidly deteriorating situation with which the enemy cannot cope. (MCRP 5-12C)

**Marine Air Command And Control System** — A system which provides the aviation combat element commander with the means to command, coordinate, and control all air operations within an assigned sector and to coordinate air operations with other Services. It is composed of command and control agencies with communications-electronics equipment that incorporates a capability from manual through semiautomatic control. Also called MACCS. (JP 1-02)

**Marine Air-Ground Task Force** — The Marine Corps principal organization for all missions across the range of military operations, composed of forces task organized under a single commander capable of responding rapidly to a contingency anywhere in the world. The types of forces in the MAGTF are functionally grouped into 4 core elements: a command element, an aviation combat element, a ground combat element, and a combat service support element. The 4 core elements are categories of forces, not formal commands. The basic structure of the MAGTF never varies, though the number, size, and type of Marine Corps units comprising each of its 4 elements will always be mission dependent. The flexibility of the organizational structure allows for 1 or more subordinate MAGTFs to be assigned, and other Service and/or foreign military forces, to be assigned or attached to the MAGTF. (MCRP 5-12C)

**Night Vision Device** — Any electro-optical device that is used to detect visible and infrared energy and provide a visible image. Night vision goggles, forward looking infrared, thermal sights, and low light level television are night vision devices. Also called NVD. See also night vision goggle(s); forward looking infrared. (JP 1-02)

**Night Vision Goggle(s)** – An electro-optical image intensifying device that detects visible and near-infrared energy, intensifies the energy, and provides a visible image for night viewing. Night vision goggles can be either hand-held or helmet-mounted. Also called NVG. See also night vision device. (JP 1-02)

**Offensive Air Support** – Those air operations conducted against enemy installations, facilities, and personnel to directly assist the attainment of MAGTF objectives by the destruction of enemy resources or the isolation of the enemy's military forces. Also called OAS. (MCRP 5-12C) OAS is one of the 6 functions of Marine aviation.

**Preplanned Air Support** – Air support in accordance with a program, planned in advance of operations. Also called air support. (JP 1-02)

**Qualification** – A status assigned to personnel based on certification and currency requirements. Upon successful completion of qualification criteria, commanding officers are authorized to issue an appropriate qualification letter. An individual failing to comply with currency requirements will result in the individual losing their respective qualification.

**Rules Of Engagement** – Directives issued by competent military authority which delineate the circumstances and limitations under which United States forces will initiate and/or continue combat engagement with other forces encountered. Also called ROE. (JP 1-02)

**Sortie** – In air operations, an operational flight by 1 aircraft. (JP 1-02)

**Strike Coordination And Reconnaissance** – A mission flown for the purpose of acquiring and reporting deep air support targets and coordinating armed reconnaissance or air interdiction missions upon those targets. Also called SCAR. (MCRP 5-12C)

**Supporting Arms Coordination Center** – A single location on board an amphibious command ship in which all communication facilities incident to the coordination of fire support of the artillery, air, and naval gunfire are centralized. This is the naval counterpart to the fire support coordination center utilized by the landing force. Also called SACC. (JP 1-02)

**Suppression Of Enemy Air Defenses** – That activity which neutralizes, destroys, or temporarily degrades surface-based enemy air defenses by destructive and/or disruptive means. Also called SEAD. (JP 1-02)

**Tactical Air Command Center** – The principal Marine Corps air command and control agency from which air operations and air defense warning functions are directed. It is the senior agency of the Marine air command and control system that serves as the operational command post of the aviation combat element commander. It provides the facility from which the aviation combat element commander and his battle staff plan, supervise, coordinate, and execute all current and future air operations in support of the Marine air-ground task force. The tactical air command center can provide integration, coordination, and direction of joint and combined air operations. Also called Marine TACC. (JP 1-02)



**Tactical Air Control Center** – The principal air operations installation (ship-based) from which all aircraft and air warning functions of tactical air operations are controlled. Also called Navy TACC. (JP 1-02)

**Tactical Air Control Party** – A subordinate operational component of a tactical air control system designed to provide air liaison to land forces and for the control of aircraft. Also called TACP. (JP 1-02)

**Tactical Air Coordinator (Airborne)** – An officer who coordinates, from an aircraft, the action of combat aircraft engaged in close support of ground or sea forces. Also called TAC(A). (JP 1-02)

**Tactical Air Direction Center** – An air operations installation under the overall control of the tactical air control center (afloat)/tactical air command center, from which aircraft and air warning service functions of tactical air operations in an area of responsibility are directed. Also called TADC. (JP 1-02)

**Tactical Air Operations Center** – The principal air control agency of the Marine air command and control system responsible for airspace control and management. It provides real time surveillance, direction, positive control, and navigational assistance for friendly aircraft. It performs real time direction and control of all antiair warfare operations, to include manned interceptors and surface-to-air weapons. It is subordinate to the tactical air command center. Also called TAOC. (JP 1-02)

**Tactical Recovery Of Aircraft And Personnel** – A mission performed by an assigned and briefed aircrew for the specific purpose of the recovery of personnel, equipment, and/or aircraft when the tactical situation precludes Search And Rescue (SAR) assets from responding and when survivors and their location have been confirmed. Also called TRAP. (MCRP 5-12C)

**Target List** – The listing of targets maintained and promulgated by the senior echelon of command; it contains those targets that are to be engaged by supporting arms, as distinguished from a "list of targets" that may be maintained by any echelon as confirmed, suspected, or possible targets for informational and planning purposes. (JP 1-02)

**Terminal Attack Control** – The authority to control the maneuver of and grant weapons release clearance to attacking aircraft. (JP3-09.3)

**Terminal Control** – 1. The authority to direct aircraft to maneuver into a position to deliver ordnance, passengers, or cargo to a specific location or target. Terminal control is a type of air control. 2. Any electronic, mechanical, or visual control given to aircraft to facilitate target acquisition and resolution. See also terminal guidance. (JP3-09.3)

**Terminal Guidance** – 1. The guidance applied to a guided missile between midcourse guidance and arrival in the vicinity of the target. 2. Electronic, mechanical, visual, or other assistance given an aircraft pilot to facilitate arrival at, operation within or over, landing upon, or departure from an air landing or airdrop facility.

3. Any electronic, mechanical, voice or visual communication that provides approaching aircraft or weapons additional information regarding a specific location or target. Terminal guidance is not a type of air control. Those providing terminal guidance do not have weapons release authority, or authority to direct the maneuver of aircraft. See also terminal control. (JP3-09.3)

**Terminal Guidance Operations (TGO)** - Terminal guidance is different from terminal attack control. TGO are actions that provide terminal guidance to weapons or aircraft to facilitate target engagement. TGO are many times conducted by SOF and make joint air attacks and SOF ground operations complementary. Enemy targets, such as mobile high-payoff targets, that are difficult to locate from the air are often more visible to ground SOF. Small ground SOF elements can sometimes search for, identify, and precisely report the location of these targets and with systems like Global Positioning System (GPS), laser designators, etc. or combinations of the above can provide target locations. Ground SOF may also be able to provide precise BDA of attacks on targets that may otherwise be obscured or hidden. TGO do not include authority to clear aircraft to release ordnance and should not be confused with terminal attack control. (JP 3-09.3)

**Time On Station** - The time that an aircraft can actually spend performing its assigned mission. It does not include the time transiting to and from the operating site. Also called TOS. (MCRP 5-12C)

**Time On Target** - 1. Time at which aircraft are scheduled to attack/photograph the target. 2. The actual time at which aircraft attack/photograph the target. 3. The time at which a nuclear detonation is planned at a specified desired ground zero. Also called TOT. (JP 1-02)

**Weaponneering** - The process of determining the quantity of a specific type of lethal or nonlethal weapons required to achieve a specific level of damage to a given target, considering target vulnerability, weapon effect, munitions delivery accuracy, damage criteria, probability of kill, and weapon reliability. (JP 1-02)



APPENDIX E

TACP MISSION ESSENTIAL TASK LIST

Duty Area 01.

Plan, develop and assess CAS requirements in support of the ground combat maneuver plan.

01.1 Participate in the Military Decision Making Process (MDMP) or Marine Corps Planning Process (MCPPE).

01.2 Coordinate the integration of surface fire support (Naval Surface Fire Support [NSFS], field artillery, and mortars) with CAS to support the commander's concept of operations.

01.3 Interpret fire support coordination measures and impact on CAS mission planning.

01.4 Integrate joint and component airspace control agencies and joint force connectivity to support CAS operations.

01.5 Interpret airspace coordination measures and their impact on CAS mission planning.

Duty Area 02.

Plan CAS and SEAD missions in support of the ground combat maneuver plan, based on knowledge of the enemy situation - Ground Order Of Battle (GOB) and air defense posture.

02.1 Apply the products of the intelligence cycle to CAS mission planning.

02.2 Plan CAS targeting in accordance with the Attack Guidance Matrix (AGM) based on knowledge of the enemy GOB.

02.3 Plan for the SEAD during the execution of CAS missions based on knowledge of the enemy air order of battle.

Duty Area 03.

Conduct target analysis relative to CAS in order to make weaponeering recommendations for the employment of CAS in support of the ground combat maneuver plan.

03.1 Apply the products of the targeting process to CAS mission planning.

03.2 Locate, validate, and recommend potential CAS targets for suitability in accordance with the AGM.

Duty Area 04.

In preparation for CAS, advise the ground maneuver element commander on the proper employment of CAS assets in support of the ground combat maneuver plan.

04.1 Advise ground unit commander on fixed wing/rotary wing CAS, fixed wing/rotary wing FAC(A), and CAS Unmanned Aerial Vehicle (UAV)/Remotely Piloted Vehicle (RPV) capabilities and limitations and the use and timely submission of Joint Tactical Air Strike Requests (JTAR).

04.2 Assess effects of weather, terrain, and threat air defenses on CAS capabilities and advise the unit commander accordingly.

04.3 Explain effects of aviation ordnance in order to recommend appropriate ordnance to obtain desired weapons effects.

04.4 Advise ground unit commander on integrating artillery and NSFS systems with CAS.

04.5 Advise ground unit commander on tactical risk management and CAS specific rules of engagement (ROE) in order to mitigate the risk of unintended consequences.

#### Duty Area 05.

Plan and coordinate CAS missions in support of the ground combat maneuver plan.

05.1 Plan day CAS missions, fixed and rotary, in support of the ground combat maneuver plan.

05.2 Plan night/adverse weather CAS missions, fixed and rotary, in support of the ground combat maneuver plan.

05.3 Plan day CAS missions, using Joint Air/Attack Team (JAAT) tactics, in support of the ground combat maneuver plan.

05.4 Plan night/adverse weather CAS missions, using JAAT tactics, in support of the ground combat maneuver plan.

05.5 Plan laser guided weapon system CAS in support of the ground combat maneuver plan.

05.6 Plan required coordination for coordinate-dependant weapons deliveries in support of the ground combat maneuver plan.

05.7 Plan AC-130 fire missions in support of the ground combat maneuver plan.

05.8 Plan required coordination for integrated attack by multiple fire support assets (artillery, mortars, NSFS and CAS) to support CAS with target marking, SEAD, and illumination.

05.9 Develop requisite knowledge to derive accurate target location, match target location format to weapon system, and provide target designation or target marking via means other than indirect fire assets.

Duty Area 06.

Request CAS missions in support of the ground combat maneuver plan.

06.1 Operate organic communications equipment in order to establish communications on designated nets to request and control CAS.

06.2 Use applicable command and control agencies for requesting CAS missions.

06.3 Complete JTAR form and route in accordance with JP 3-09.3.

Duty Area 07.

Provide terminal attack control of CAS missions in support of the ground combat maneuver plan.

07.1 Control day CAS missions, fixed and/or rotary wing, in support of the ground combat maneuver plan.

07.2 Control night/adverse weather CAS missions, fixed and/or rotary wing, in support of the ground combat maneuver plan.

07.3 Demonstrate capability to control day CAS missions, using JAAT tactics, in support of the ground combat maneuver plan.

07.4 Demonstrate capability to control night/adverse weather CAS missions, using JAAT tactics, in support of the ground combat maneuver plan.

07.5 Control laser guided weapon system CAS missions in support of the ground combat maneuver plan.

07.6 Demonstrate capability to control coordinate-dependant weapons deliveries for CAS missions in support of the ground combat maneuver plan.

07.7 Demonstrate capability to control AC-130 fire missions in support of the ground combat maneuver plan.

07.8 Demonstrate capability to coordinate attack by multiple fire support assets (such as artillery, mortars, and NSFS), to support CAS with target marking, SEAD, and illumination. Training may be conducted with live, training or simulated ordnance.

07.9 Demonstrate capability to de-conflict assets in target area to include:

- a. Aircraft to aircraft
- b. Aircraft and aircraft munitions
- c. Aircraft and direct/indirect fires

Duty Area 08.

Conduct post-strike assessment for input in the development of BDA and follow-on entry into the targeting process.

08.1 Provide input into the BDA and follow-on entry into the targeting process.

08.2 Complete a Mission Report (MISREP) and re-attack recommendation for BDA.

08.3 Route MISREP per CAS JTTP.

Duty Area 09.

Advise commanders of ground units on the suitability of targets as objectives for aircraft, types of aircraft best suited for particular missions, and on marking of targets and front-line positions.

09.1 Maintain liaison with ground intelligence officers to obtain information on enemy positions, location of targets, position of front lines, and time aircraft are needed for strike.

09.2 Arrange air support missions by contacting aviation units and providing number and type of aircraft needed, target information, armament desired, and time of attack.

09.3 Coordinate all aviation assault support missions for ground units.